

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.	:	10/478,262	Confirmation No. 2549
Applicants	:	Evert J. BUNSCHOTEN et al.	
Filed	:	May 25, 2004	
Title	:	PHARMACEUTICAL COMPOSITION FOR USE IN HORMON REPLACEMENT THERAPY	
Group Art Unit	:	1617	
Examiner	:	San Ming R. HUI	
Customer No.	:	28289	
Application No.	:	10/478,264	Confirmation No. 4962
Applicants	:	Evert J. BUNSCHOTEN et al.	
Filed	:	May 25, 2004	
Title	:	USE OF ESTROGEN COMPOUNDS TO INCREASE LIBIDO IN WOMEN	
Group Art Unit	:	1617	
Examiner	:	San Ming R. HUI	
Customer No.	:	28289	
Application No.	:	10/478,357	Confirmation No. 3771
Applicants	:	Evert J. BUNSCHOTEN et al.	
Filed	:	May 25, 2004	
Title	:	DRUG DELIVERY SYSTEM COMPRISING A A TETRAHYDROXYLATED ESTROGEN FOR USE IN HORMONAL CONTRACEPTION	
Group Art Unit	:	1617	
Examiner	:	San Ming R. HUI	
Customer No.	:	28289	

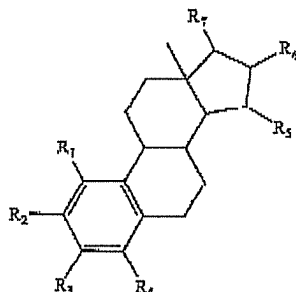
Application No.	:	10/517,509	Confirmation No. 1291
Applicants	:	Herman J. T. Coclingh Bennink et al.	
Filed	:	June 13, 2005	
Title	:	METHOD OF TREATING HUMAN SKIN AND A SKIN CARE COMPOSITION FOR USE IN SUCH METHOD	
Group Art Unit	:	1617	
Examiner	:	Samira JEAN-LOUIS	
Customer No.	:	28289	

DECLARATION

I, Strauss III, Jerome F. declare and state the following:

1. A detailed listing of my publications, together with details of my education, are given in my *curriculum vitae* which is attached as Exhibit A.
2. Based on my academic training and professional experience, I consider myself an expert in the field of estrogen-related therapies and treatments, and I was such a person in 2001 and 2002.
3. I have received copies of patent applications that I understand were filed in the United States and correspond to the above-captioned applications.
4. I understand that the above mentioned patent applications relate to:
 - new methods of contraception (Appln. 10/478,357);
 - new methods of hormone replacement therapy (Appln. No. 10/478,262);
 - a new method of increasing female libido (Appln. No. 10/478,264);
 - a new method treating vaginal dryness (Appln. No. 10/517,509).

The aforementioned methods have in common that they comprise administration of the following estrogenic component:



wherein R₁, R₂, R₃ and R₄ independently are a hydrogen atom, a hydroxyl group or an alkoxy group with 1-5 carbon atoms. R₅, R₆ and R₇ are hydroxyl groups. No more than three of R₁, R₂, R₃ and R₄ are hydrogen atoms. The invention also includes using variations of this formula, such as precursors capable of liberating a substance according to the aforementioned formula and mixtures of one or more of the aforementioned substances and/or precursors. One embodiment of the aforementioned formula is estetrol.

5. I have also received copies of Office Actions that have been issued in relation to the above referenced pending patent applications. Specifically, I have received copies of the following Office Actions:

- OA-1 - 10/478,262 (Non-final Office Action mailed on May 15, 2008)
- OA-2 - 10/478,264 (Non-final Office Action mailed on March 6, 2008)
- OA-3 - 10/478,357 (Non-final Office Action mailed on May 16, 2008)
- OA-4 - 10/517,509 (Non-final Office Action mailed on March 26, 2008)

6. I have further received copies of the following references that I have been told have been cited in the above mentioned Office Actions against the independent claims of the above referenced pending patent applications.

Publications mentioning estetrol:

- D1 US 5,211,952 (Spicer et al.) – cited in OA-4
- D2 US 5,340,584 (Spicer et al.) – cited in OA-2
- D3 US 5,340,586 (Pike et al.) – cited in OA-1, OA-2 and OA-3
- D4 US 2004/0192598 (Kragie) – cited in OA-4
- D5 Holinka, Biology of Reproduction, 1979; 20(2): 242-246¹ – cited in OA-1 and OA-2
- D6 Holinka, Biology of Reproduction, 1980; 20(4): 913-926² – cited in OA-1 and OA-2

Publications not mentioning estetrol:

- E1 Ullom–Minnich, American Family Physician, 1999; 60: 194-202 – cited in OA-1
- E2 Katzung, Basic and Clinical Pharmacology, 6th ed., 1995, 608-624 – cited in OA-3
- E3 Willhite et al. (Pharmacotherapy, 2001, vol. 21, issue 4, 464-480 – cited in OA-4
- E4 Sitruk-Ware et al. (Schweiz. Rundsch., Med. Praxis, 1997, vol. 86, No. 33, 1245-1248 – cited in OA-4

It is my understanding that the independent claims of the pending patent applications that are the subject of this Declaration were rejected as being unpatentable over the above cited references under 35 U.S.C. 103(a) (obviousness). I have been asked to comment on my understanding of the state of the art prior to June 11, 2002, which I understand is the priority date for Appln. No. 10/517,509. Particularly, I have been asked whether, prior to June 11, 2002, a person of ordinary skill in the art would have considered it obvious to use estetrol in the pharmacological applications listed in § 4. More particularly, I have been asked whether, prior to the June 11, 2002, a person of ordinary skill in the art would have been motivated to use estetrol in the pharmacological applications listed in § 4, and whether the discovery that estetrol was pharmacologically useful in these applications is unexpected and surprising.

7. It is my view that, prior to June 11, 2002, for the reasons presented below, a person of ordinary skill in the art would not have expected estetrol to be pharmacologically useable, and that the Applicants were the first to discover the pharmacological usefulness of estetrol. In addition, and more particularly, it is my opinion that, prior to June 11, 2002, a person

of ordinary skill in the art would not have expected estetrol to be pharmacologically active when orally administered.

8. I declare that before June 11, 2002 I had no knowledge of any concrete pharmacological application of estetrol. Furthermore, before June 11, 2002, I did not expect that estetrol can be used effectively as a drug in therapeutic treatments or in hormonal contraceptives. Based on the data from scientific literature that was available before June 11, 2002, I would have expected estrogenic activity of estetrol to be too low for pharmacological applications, such as the ones recited in Applicants' claims.

9. My view that a person of ordinary skill in the art would not have expected estetrol to be pharmacologically active is supported by leading textbooks in the field of endocrinology. In "Clinical Gynecologic Endocrinology and Infertility" ³ estetrol is solely mentioned in Chapter 8 (The Endocrinology of Pregnancy) under the subheading "Measurement of Estrogen in Pregnancy" (page 287) and in the index. On page 287 it is stated that "Estetrol (15alpha-hydroxyestriol) is formed from a fetal precursor and is very dependent on 15alpha-hydroxylation activity in the fetal liver. The capacity for 15alpha-hydroxylation of estrogens increases during fetal life, reaching maximum at term. This activity then declines during infancy and is low, absent or undetectable in adults. There is no clinical use for maternal blood or urine estetrol measurements during pregnancy. The clinical use of maternal blood and urine estetrol measurements is of no advantage over the usual estriol assessment."

10. The unexpected pharmacological activity of estetrol is associated with Applicants' discovery that estetrol has a surprisingly long *in vivo* elimination half-life. Applicants' finding that estetrol has a terminal elimination half-life of about 28 hours, which is very much longer than that of the other pregnancy hormone estriol (5-10 minutes), was very unexpected and provided the clue towards its pharmacological usefulness as will be further explained below.

11. It is my understanding that the claims of the pending patent applications that are the subject of this Declaration were rejected as obvious because it has been asserted by USPTO examiners that it is known from the references cited in § 6:

- (i) to use estrogens with or without progestins in HRT (reference E1);

- (ii) to use a combination of estrogen and progestin in hormonal contraceptives (reference E2);
- (iii) to use estrogen to treat decreased libido in women taking GnRH agonists (reference D2); and to use a combination of estrogen and androgen to treat decreased libido in oophorectomized women (reference D3);
- (iv) to treat vaginal dryness by administering estrogen (references D1, D4, E3, E4).

12. Assuming that the references cited by the USPTO examiners disclose the information contained in § 11 (i) to (iv), I do not think that, in view of these references, it would have been obvious to use estetrol in pharmacological applications described in § 4. I appreciate that the cited references D1 to D4 contain references to estetrol within a lengthy list of other estrogens. Furthermore, I have read the cited papers published by Holinka et al ("Holinka articles")^{1,2}, which report that parenterally administered estetrol produced estrogenic changes in the immature rat uterus.

13. I declare that although the cited references D1 to D4 list estetrol among candidate estrogens for pharmaceutical use, it is my view that a person of ordinary skill in the art having knowledge of the aforementioned patent publications D1 to D4 and the "Holinka articles", would not have expected estetrol to be pharmacologically useable for the reasons presented below.

14. The mere mentioning of estetrol in a long list of candidate estrogens in D1 to D4 without any experimental data to support the viability of pharmaceutical uses described in these patents, in my view would not have provided a person of ordinary skill in the art with any motivation to actually employ estetrol in these pharmaceutical uses. Furthermore, the aforementioned US patent publications would not have provided a person of ordinary skill in the art with any motivation to replace the estrogens employed in the uses (i) to (iv) mentioned in § 11 with estetrol.

15. In Holinka (1979)¹ the estrogenic activity of estetrol was evaluated by examination of uterine responses to subcutaneous administration of estetrol in doses of 10 and 50 µg/100g body mass. The effects were compared to those obtained by administration of 1 µg/100g body mass estradiol or estriol. The last paragraph of the abstract of Holinka (1979) reads as follows "It is concluded that estetrol administered as a single dose or in 2 doses at a 24 h interval

is a weak estrogen which produces effects of short duration. It cannot, however, be considered entirely devoid of estrogenic activity, even though true uterine hyperplasia, as estimated by DNA content, was not promoted by administration of the two 50 µg/100 g bw doses of estetrol”.

16. Holinka (1980)² describes the results of a study that aimed to extend the study described in Holinka (1979). In this follow-up study estrogenic effects on immature rat uterus of estetrol and the antiestrogen tamoxifen were compared with those of estradiol and estriol. This time, estetrol was injected subcutaneously for 3 days at a dose of 50 µg/100g body mass, a dose 50 times greater than the dosages of estradiol and estriol that were administered subcutaneously (at a dose of 1 µg/100g body mass). The last paragraph of the abstract of Holinka (1980) reads as follows: “In general estradiol treatment promoted the most marked changes, followed by tamoxifen, estriol and estetrol. On the basis of the present biochemical and morphological results, it is concluded that estetrol and tamoxifen have estrogenic effects on the immature rat uterus. However, the estrogenic potency of estetrol, relative to estradiol or estriol was low at the dosage and timing of administration used in these experiments; effects of estetrol introduced in the circulation at a constant rate were not evaluated. These results suggest that the conversion of estradiol to estetrol in the human fetus represent an efficient mechanism of inactivation of the placental hormone.” Specifically, even though Holinka et al administered 50 times more estetrol than estradiol or estriol, the observed uterotrophic effects of estetrol were still smaller than those of estradiol or estriol. Thus, from Holinka (1980), one of ordinary skill in the art would expect estetrol to be more than 50 times less effective than a weak estrogen, such as estriol.

17. It is my view that a person of ordinary skill in the art would have deduced from the Holinka articles that estetrol has estrogenic activity, but that it is a much weaker estrogen than the already weak estrogen estriol, given that estetrol injected subcutaneous at 50 µg/100g body mass exhibited less estrogenic activity than estriol injected subcutaneous at 1 µg/100g body mass. Estriol is a very weak estrogen due to its low receptor affinity in combination with its very short half-life of 5-10 minutes. Since the Holinka articles teach that estrogenic activity of estetrol is at least 50 times lower than that of a weak estrogen for which very few practical applications exists, the Holinka articles would not have provided a motivation for a person of ordinary skill in the art to investigate the potential pharmacological usefulness of estetrol.

18. Applicants have demonstrated that, contrary to what a person of ordinary skill in the art would have expected, estetrol is pharmacologically very active. The unexpected pharmacological activity of estetrol is associated with its surprisingly long *in vivo* elimination half-life. Whereas, under comparable conditions, the human estrogens estradiol and estriol have terminal elimination half-lives of about 30 minutes and 5-10 minutes respectively, estetrol has a terminal elimination half-life of about 28 hours. A person of ordinary skill in the art would have expected estetrol to be more comparable to estriol than estradiol given that (i) estetrol differs from estriol by only 1 hydroxy group and from estradiol by 2 hydroxy groups and (ii) both estriol and estetrol are produced during pregnancy. Hence, Applicants' finding that estetrol has a terminal elimination half-life that is 168-336 higher than that of the other pregnancy hormone estriol, was very unexpected and provided the clue towards its pharmacological usefulness. Based on my knowledge of the relevant art, I conclude that Applicants are the first to have discovered estetrol's pharmacological usefulness. As explained herein before, it is my view that, prior to June 11, 2002, a person of ordinary skill in the art would not have anticipated this usefulness.

19. In addition, I conclude that Applicants are the first to have discovered estetrol's high oral bioavailability. This finding is truly surprising as other human estrogens, notably estradiol, estriol and estrone, exhibit low oral bioavailability because they are largely metabolized into inactive metabolites during the so called "first pass" through the liver after oral administration. It is my opinion that, given that estetrol's estrogen receptor affinity was known to be considerably lower than that of estradiol and estriol, a person of ordinary skill in the art, being aware that known human estrogens are largely metabolized during the first pass, could not have anticipated the high oral bioavailability of estetrol. Thus, in my view, prior to June 11, 2002, a person of ordinary skill in the art could not have anticipated estetrol's oral pharmacological activity.

20. As mentioned herein before, it is my view that a person of ordinary skill in the art could not have anticipated the advantageous pharmacological properties of estetrol that Applicants have described in the above referenced pending patent applications and that have been reported in scientific articles that were published after June 11, 2002. In particular, such a skilled person could not have foreseen the favorable pharmacokinetic (ADME) and

pharmacodynamic properties of estetrol. These favorable properties of estetrol are remarkable since they are much less manifest in other human estrogens, notably estradiol, estriol and estrone. The unexpected favorable properties of estetrol that have been described by Applicants in the aforementioned pending patent applications and that were not known before June 11, 2003 include:

A. Long *in vivo* elimination half-life in the human

- In the first human study with estetrol, a dose-independent terminal elimination half-life of about 28 hours after single oral administration to early postmenopausal women was demonstrated ^{4,5}. Terminal elimination half-lives of the human estrogens estradiol and estriol under comparable conditions are about 30 minutes and 5-10 minutes respectively ³.

B. No binding affinity for sex hormone binding globulin (SHBG)

- Competitive ligand binding assays did not detect any binding of estetrol to the SHBG steroid-binding sites ^{4,6}. By contrast, estradiol is bound by SHBG with high affinity ⁶.

C. No ER α -mediated increase in SHBG production by HepG2 or Hep89 cells

- Fluorometric assays in wild-type human HepG2 and Hep89 cells showed that estetrol does not stimulate ER α -mediated increases in SHBG production by these cells, in contrast to estradiol and estriol ^{4,6}.

D. No conversion to other active metabolites

- Estetrol is an end-stage product of estrogen metabolism ^{4,5,7}. In contrast, especially after oral administration, estradiol is rapidly and reversibly converted by the liver to the estrogenic metabolites estrone and estrone sulfate.

E. No significant inhibition of P450 enzymes

- At a concentration of 10 $\mu\text{mol/l}$ estetrol has no inhibitory effect on any recombinant human P450 enzymes CYP1A2, CYP2C9, CYP2C19, CYP2D6 and CYP3A4. In contrast, at the same concentration estradiol moderately inhibits CYP1A2 and strongly inhibited CYP2C19 ^{4,7}.

F. Highly selective binding to estrogen receptors ER α and ER β

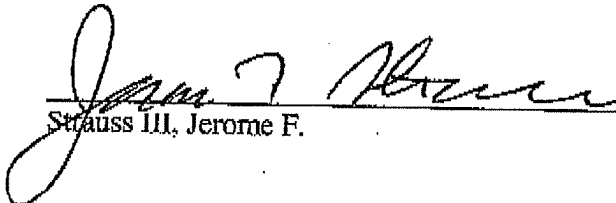
- Estetrol tested at a prime concentration of 10 $\mu\text{mol/l}$, did not show significant (>20%) inhibition of the binding of the respective ligands in 123 of the 124 assays studied (Estetrol only inhibited binding of prazosin at the adrenergic α_{1B} receptor by 23%) ^{4,7}.
- G. Estrogen agonist in bone, vagina, myometrium, endometrium and brain, but estrogen antagonist in breast tumor tissue in the presence of estradiol
- Estetrol significantly and dose-dependently inhibited the OVX-related increase in osteocalcin levels, increased bone mineral density and content, and increased bone strength ^{4,8}.
 - Estetrol is effective in preventing temperature rises dose-dependently in an animal model considered representative for menopausal vasomotor symptoms ^{4,9}.
In the modified Allen-Doisy test estetrol was found to have dose-dependent estrogenic effects on the vagina and on the uterus of ovariectomized rats including the endometrium ^{4,10}.
 - Estetrol at a twice-daily dose of 0.3 mg/kg and above effectively inhibited ovulation in regularly cycling female rats ^{4,11}.
 - Estetrol dose-dependently prevents the growth of chemically induced (DMBA) mammary tumors in rats and has the potential to reduce the number and size of pre-existing mammary tumors ^{4,12}. By contrast it is well-established that estradiol has proliferative effects on breast tumor cells and tissue.
- H. Oral absorption in the human with a strong dose-response relationship suggesting high oral bioavailability
- In a first-in-human study four single doses of 0.1, 1, 10 and 100 mg estetrol were administered orally to early postmenopausal women. High oral bioavailability, a strong dose-response relationship and a long elimination half life (see A) were found. For the first time (oral) pharmacodynamic effects of estetrol were observed since the data showed a strong suppression of follicle stimulating hormone (FSH) with the 100 mg dose and a dose-dependent inhibition of luteinizing hormone (LH) levels ^{4,5}.

The above mentioned features A to D imply that the estrogenic activity of estetrol is much more pronounced than could have been anticipated on the basis of the estrogen receptor affinity studies described in scientific literature before June 11, 2002. Features E and F indicate that it is unlikely

that estetrol administration will induce undesirable side-effects. Feature G indicates that estetrol may suitably be used as a drug in estrogen or hormone replacement therapy (ERT/HRT) including the prevention of osteoporosis (US 10/478,262), the treatment of female sexual dysfunction (US 10/478,264), topical treatment of vaginal atrophy (US 10/517,509) and as the estrogenic component in contraceptives (US 10/478,357). Feature H indicates that estetrol has potential as a once-a-day oral drug for human use.

21. I have not been compensated for the execution of this declaration, or any time I spent relating to this declaration.

22. I declare further that all statements made herein are true to my knowledge; and that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.


Strauss III, Jerome F. Date 8/26/08

References

- ¹ Holinka et al., *In vivo effects of estetrol on the immature rat uterus*. Biol Reprod 20 (1979) 242-6.
- ² Holinka et al., *Comparison of effects of estetrol and tamoxifen with those of estradiol and estradiol on the immature rat uterus*. Biol Reprod 22 (1980) 913-26.
- ³ Leon Speroff, Robert H. Glass and Nathan G. Kase. *Clinical Gynecologic Endocrinology and Infertility*. Baltimore, Maryland, USA. Lippincott Williams & Wilkins, 1999.
- ⁴ Coelingh Bennink et al., *Estetrol Review: profile and potential clinical applications*, Climacteric 2008; 11 (Suppl 1): 47-58
- ⁵ Visser et al., *First human exposure to exogenous single-dose oral estetrol in early postmenopausal women*, Climacteric 2008; 11 (Suppl 1): 31-40
- ⁶ Hammond et al., *Estetrol does not bind sex hormone binding globulin or increase its production by human HepG2 cells*, Climacteric 2008; 11 (Suppl 1): 41-46
- ⁷ Visser et al., *In vitro effects of estetrol on receptor binding, drug targets and human liver cell metabolism*, Climacteric 2008; 11 (Suppl 1): 64-68
- ⁸ Coelingh Bennink et al., *Oral bioavailability and bone-sparing effects of estetrol in an osteoporosis model*, Climacteric 2008; 11 (Suppl 1): 2-14
- ⁹ Holinka et al., *Preventive effect of oral estetrol in a menopausal hot flush model*, Climacteric 2008; 11 (Suppl 1): 15-21
- ¹⁰ Heegaard et al., *Estrogenic uterovaginal effects of oral estetrol in the modified Allen-Doisy test*, Climacteric 2008; 11 (Suppl 1): 22-28
- ¹¹ Coelingh Bennink et al., *Ovulation inhibition by estetrol in an in vivo model*, Contraception 2008; 77: 186-190
- ¹² Coelingh Bennink et al., *Estetrol, a pregnancy specific human steroid, prevents and suppresses mammary tumor growth in a rat model*, Climacteric 2008; 11 (Suppl 1): 29

EXHIBIT “A”

VIRGINIA COMMONWEALTH UNIVERSITY- SCHOOL OF MEDICINE

CURRICULUM VITAE

JEROME F. STRAUSS, III

Home Address: 2805 Monument Avenue, Unit 3
Richmond, VA 23221

Office Address: Sanger Hall, Room 1-01
1101 East Marshall Street
Richmond, VA 23298-0565

Date of Birth: May 2, 1947
Place of Birth: Chicago, IL
Marital Status: Married 1970 - Catherine
Children: Jordan Lawrence, 1978
Elizabeth Johanna, 1981

Education:

1965-69	B.A.	Brown University
1969-74	M.D.	University of Pennsylvania
1970-75	Ph.D.(Molecular Biology)	University of Pennsylvania

Postgraduate Medical Training:

1975-76	Obstetrics and Gynecology Hospital of the University of Pennsylvania
---------	---

Faculty Appointments:

1976-77	<i>Associate</i> , Department of Obstetrics and Gynecology, University of Pennsylvania School of Medicine
1977-82	<i>Assistant Professor</i> , Department of Obstetrics and Gynecology, Pathology and Laboratory Medicine and Physiology, University of Pennsylvania
1982-85	<i>Associate Professor</i> , Department of Obstetrics and Gynecology, Pathology and Laboratory Medicine and Physiology, University of Pennsylvania
1985-	<i>Professor</i> , Department of Obstetrics and Gynecology, Pathology and Laboratory Medicine and Physiology, University of Pennsylvania
1987-	<i>Associate Chairman</i> , Department of Obstetrics and Gynecology, University of Pennsylvania
1992-2005	<i>Luigi Mastroianni, Jr. Professor and founding Director</i> , Center for Research on Reproduction and Women's Health

University of Pennsylvania

2005- *Dean, School of Medicine and Executive Vice President for Medical Affairs, and Professor of Obstetrics and Gynecology, Virginia Commonwealth University*

Hospital and Administrative Appointments (University of Pennsylvania):

1978-82	Medical Scientist Training Program Advisory Committee
1980-84	Clinical Research Center Advisory Committee
1981-87	Director, Endocrine Laboratory, Hospital of the University of Pennsylvania
1981-87	Principal Investigator, Institutional alpha fetoprotein screening program for neural tube defects
1982-	Member, Cancer Center
1983-90	Member, Long Range Planning Committee Subcommittee on Medical Education
1984-	Director, Division of Reproductive Biology Department of Obstetrics and Gynecology
1984-	Consultant, PMS Clinic, Department of Obstetrics and Gynecology
1984-89	Consultant, Women's Wellness Center
1985-86	Director, RIA Core Facility, Diabetes and Endocrinology Research Center
1985-86	Committee on AIDS
1985-86	Ad Hoc Committee on Animal Care Facilities
1985-89	Clinical Research Building Design Committee
1985-1993	Executive Committee, Graduate Group on Pathology
1986-	Diabetes Research Center Executive Committee
1986-1993	Director, Combined Degree Programs and Medical Scientist Training Program
1986-1993	Advisory Council, Biomedical Graduate Studies
1986-1993	Advisory Council, Medical Scholars Program
1987-1990	Member, Long Range Planning Committee
1987-1991	Member, Curriculum Committee School of Medicine
1987-1989	Member, Search Committee for the Chair of Physiology
1987-1989	Member, Search Committee for the Dean of the School of Medicine
1990	Acting Director, Biomedical Graduate Studies
1990-1993	Associate Dean for Combined Degree Studies and Special Research
1993-	Clinical Research Center Advisory Committee
1993-1995	Member, Committee on Appointments and Promotions, University of Pennsylvania Medical Center
1993	Executive Committee, Task Force on Women's Health Services
1995	Search Committee, Chair of Microbiology
1995	Task Force on human pre-embryo research
1996	Committee to review University policy on nepotism
1996-2002	Director, Center of Excellence in Women's Health
1996-	Penn-Hughes Scholars in Developmental Biology Advisor Committee
1996-	Director, National Cooperative Program in Infertility

	Research, University of Pennsylvania
1997	Search Committee, Chair, Department of Medicine
1998	Dean's Committee on the Life Sciences
1999-	International Programs Advisory Committee
1999	Committee to Review the Institute for Human Gene Therapy
1999-2002	Academic Review Committee, School of Medicine
1999	Chair, Committee to Review the Department of Genetics
2001	Human Subjects Research Committee
2001	Chair, Committee on Principles of Research Space Utilization

Hospital and Administrative Appointments (Virginia Commonwealth University)

2005-	Committee Member, Ex Officio, VCU Health System Authority
-------	---

Licensure: Pennsylvania, MD018395E

Hospital Staff Appointments

1981-2003	Hospital of the University of Pennsylvania
-----------	--

Graduate Group Appointments at the University of Pennsylvania:

1978-2005	Physiology
1982-2005	Molecular Biology
1985-1996	Pathology (Executive Committee 1985-1992)
1988-2005	Cell and Molecular Biology

Awards, Honors and Membership in Honorary Societies:

1969	B.A. awarded cum laude with Honors in Biology
1969	New York City Health Sciences Training Program Fellowship
1971	Alpha Omega Alpha
1971-75	Medical Scientist Training Program Fellowship
1975	Rittenhouse Award, University of Pennsylvania School of Medicine
1979-	John Morgan Society, University of Pennsylvania
1983	Berwick Award for Distinguished Teaching
1983	Medical Student Government Distinguished Teaching Award
1990	Co-author Prize Paper, Society of Reproductive Endocrinologists, American Fertility Society
1990	President's Achievement Award, Society for Gynecologic Investigation
1992	Research Award, Society for the Study of Reproduction
1994	Institute of Medicine, National Academy of Sciences
1994	Transatlantic Medal, British Endocrine Society
2001	Beacon Award, Marine Biological Laboratories
2001	Society for Maternal-Fetal Medicine 2001 Award for Research Excellence (co-author best scientific paper)
2002	Fellow, International Academy of Human Reproduction
2004	Pioneer Award, Frontiers in Reproduction, Marine Biological Lab. And NICHD
2005	Distinguished Graduate Award, University of Pennsylvania School of Medicine
2006	Distinguished Scientist Award, Society for Gynecologic Investigation

2007 Distinguished National Research Service Award, Marine Biological Laboratories and NICHDF

Named Lectureships

1985	James H. Leatham Memorial Lecturer, New Jersey College of Medicine and Rutgers University	
1989	Ernest W. Page Memorial Lecturer, University of	
1993	Thomas G. Muldoon Memorial Lecturer, Medical College of Georgia	
1994	Van Campenhout Memorial Lecturer, Canadian Fertility and Andrology Society	
1994	Maternal and Child Health Lecturer, Society for Perinatal Research	
1994	First Anita Payne Lecturer, University of Michigan	
1995	Serono Lecture, American Society for Reproductive	Medicine
1997	Earl R. Plunkett/Wyeth-Ayerst Lecture, University of Western Ontario	
1997	John Patrick Memorial Public Lecture, University of Western Ontario	
1998	Johns Hopkins-University of Maryland Lecture	
1998	Transatlantic Lecture, British Endocrine Societies	
1999	Dr. Jacob Probststein Visiting Professor, Washington University	
1999	A.V. Nalbandov Memorial Lecture, University of Illinois	
1999	The First Jordan M. Phillips Lecturer, American Association of Gynecologic Laparoscopists	
2003	Shirley Dungan Kheel Memorial Lecture, Eastern Virginia School of Medicine	
2003	Sydney A. Asdell Memorial Lecturer, Cornell University	
2005	Cosgrove Memorial Lecture, American College of Obstetricians and Gynecologists	
2006	Sidney Guzik Scholar Day Lecturer, University of Rochester	
2006	Sheldon Norsley III Memorial Lecture, Richmond Academy of Medicine	
2006	Ware-Dunn Lecture, Ware-Dunn Society	
2006	Van Campenhout Memorial Lecture, Canadian Fertility Society	
2007	Chuangkong Scholar, Chinese Ministry of education	

Memberships in Professional and Scientific Societies:

National Societies:

- Endocrine Society
 - Program Committee 1992-1994; Recent Progress in Hormone Research Steering Committee, 1995-1998
- American Physiological Society
- American Association of Pathologists
- Society for Gynecologic Investigation
 - Program Committee 1990, 1991
 - President nominee, 2001
 - President Elect, 2002
 - President, 2003

Society for the Study of Reproduction
 Nominating Committee, 1977;
 Membership Committee, 1982;
 Long Range Planning Committee, 1987;
 Director, 1988-1991;
 Program Committee, 1991-1993,
 Chair, Development and Endowment Committee, 1994 -1997
 Blue Ribbon Long Range Planning Committee, 1997
 American Fertility Society
 Chair, Postgraduate course, 1999
 Academy of Clinical Laboratory Physicians and Scientists

Local Societies:

Philadelphia Endocrine Society
 Board of Directors, 1978-1981
 Philadelphia Lipid Club

Editorial Positions:

1982-1986 Journal of Lipid Research, Associate Editor
 1986-1989& Endocrinology, Editorial Board
 1996-2000
 1986-1990 & Biology of Reproduction, Editorial Board
 1999-2003
 1987-1991 Journal of Lipid Research, Editorial Board
 1991-1999 Journal of Steroid Biochemistry and Molecular
 Biology, Corresponding Editor
 1992- Journal of Women's Health, Editorial Board
 1992- Steroids, Editor
 1993- Journal of the Society for Gynecologic Investigation,
 Editorial Board
 1993- Journal of Reproduction and Development,
 Special Advisory Board
 1996-1998 Placenta, Editorial Board
 1997 Encyclopedia of Reproduction, Associate Editor
 1997-2000 Endocrinology, Editorial Board
 1999- Trends in Endocrinology and Metabolism, Editorial Board
 1999- Reference en Gynecologie Obstetrique, Scientific
 2000- Seminars in Reproductive Medicine, Editorial Board
 2000- Journal of Endocrinology, Editorial Board
 2000-2005 Human Reproduction Update, Associate Editor
 2004- Science, Board of Reviewing editors
 2007- Molecular Human Reproduction, Associate Editor

Service for the National Institutes of Health and National Science Foundation:

1981 Ad hoc member, Biochemical Endocrinology Study
 Section, NIH
 1983-1987 Member, Biochemical Endocrinology Study Section,
 NIH
 1983 Consultant, National Science Foundation,
 Regulatory Biology
 1983 Special Reviewer, Endocrinology Study Section, NIH
 1984 Member, Special Study Section for review of
 proposals on human infertility
 1988 Member, Special Study Section for review of
 Medical Scientists Training Programs

1988-1992 Member, Population Research Committee, NICHD
 1989-1992 Chair: Population Research Committee, NICHD
 1991 Co-Chair, Early Development Working Group, Office of
 Research on Women's Health
 1992 Ad Hoc Member, Maternal and Child Health Committee, NICHD
 1992 NIEHS Contracts Review Committee
 1993- International Cooperative Programs Study Section
 1994 NIDA Contract Review Committee
 1995 Chair, Conference on establishing an Americas
 Reproductive Sciences Network
 1995- Chair, Reproductive Scientists of the Americas Network
 1996 Chair, N.I.C.H.D. Special Study Section for Center grant
 review
 1996- Co-chair Indo-U.S. joint Working Group on Contraception
 1997 Special reviewer, HED-1 Study Section
 2000 Special reviewer, ENDR-2G1 Study Section
 2001 Chair, ENDR-2G1 Study Section
 2002 Member, ENDR-2G1 Special Emphasis Panel
 2002- National Child Health and Human Development Advisory Council
 2003 Chair, Institute of Medicine Committee on Frontiers in Contraception
 Research

Other service activities:

1983- Consultant, Medical Research Council of Canada,
 Grant Review
 1983- Consultant, Veterans Administration, Division of
 Research Grants
 1983 Review Committee for Middle States
 Accreditation, Department of Biochemistry and
 Physiology, Medical College of Pennsylvania
 1983-1985 Consultant, Corning Medical, on development of
 diagnostic reagents
 1983 Consultant, Wyeth Pharmaceutical Co., on
 development of diagnostic reagents
 1983 Inspector, College of American Pathologists,
 Laboratory Standards
 1984 Co-organizer, Symposium on Lipoprotein and Cholesterol Metabolism in
 Steroidogenic Tissues, Quebec, Canada
 1984- Consultant, United States-Israel Binational
 Agricultural Research Development Fund, Grant review
 1985-1986 Consultant, Baker Instruments, on development of
 diagnostic reagents
 1986 International Organizing Committee, 1st International Symposium on
 Ovarian Function, Sapporo, Japan
 1987 International Organizing Committee, Workshop on
 Maternal Recognition of Pregnancy, Jerusalem, Israel

 1988-1994 Board of Directors, Ovarian Workshops
 1989 Institute of Medicine, National Academy of Sciences
 1990 Advisory Group on Assisted Reproductive Technologies
 1991 International Organizing Committee, IInd International
 1992 Symposium on Ovarian Function, Sapporo, Japan
 1990 Co-organizer, Workshop on Uterine and Embryonic factors in
 Early Pregnancy, Bellagio, Italy

1991	External Consultant, Review of the Department of Ob/Gyn, Yale University
1991-1993	Scientific Advisory Committee VIIIth World Congress on In Vitro Fertilization and Alternate Assisted Reproduction, Kyoto, Japan
1991-	Scientific Advisory Committee, Wisconsin Regional Primate Center
1991	Organizing Committee Symposium on Endocrinology of Embryo-endometrial interactions, Bordeaux, France
1991	Institute of Medicine, National Academy of Sciences Committee on Research in Academic Departments of Obstetrics and Gynecology
1991-	Reproductive Scientist Training Program, Evaluation and Selection Committees
1992-1995	Ares-Serono Scientific Advisory Board in Reproductive Endocrinology
1993	Scientific Committee, Second International Conference on the Endometrium
1994	Organizing Committee, 3rd International Symposium on Ovarian Function, Sapporo, Japan
1994	Board of Directors, World Congress on Human Reproduction
1994-	External Advisory Board, University of Pittsburgh Center for Reproductive Biology
1994-1996	Scientific Advisory Board, Biointerventions Inc.
1994-1997	NIDA Advisory Committee for University of Kansas Contract on Placental Drug Transfer
1995	Consultant, Akzo-Nobel, Organon Pharmaceutical Co.
1996-1999	Chair, Scientific Advisory Board, Reprogen Inc.
1996-	Advisory Committee, Burroughs-Wellcome Fund Career Awards (Co-Chair 2000-)
1996-	Advisory Board, Perinatology Research Center, Brown University
1997	Organizing Committee, FASEB Conference on fetal vascular physiology
1997-1998	Member, Item-writing Committee, USMLE
1997-2001	Expert Advisory Panel, FIGO
1997-	Advisory Committee, University of Maryland Reproductive Sciences Center
1997	Chair, External Advisory Board, Northwestern University Center for Reproductive Sciences
1997-	Chair, Scientific Advisory Board, Femme Pharma, Inc.
1998	Scientific Advisory Committee, IVth Sapporo Ovary Symposium
1998-2002	N.V. Organon, Medical Advisory Board
2000-2002	Scientific Advisory Board, GeneFormatics, Inc.
2000	Co-organizer, Society for Gynecologic Investigation Symposium on Biotechnology in the Service of Reproductive Medicine, Salt Lake City, UT
2000-2002	Scientific Advisory Board, DIOGENICS/PLUVITA
2000	Scientific Organizing Committee, Serono Workshop on Reproductive Competence, Santiago, Chile
2000	Scientific Organizing Committee, Serono Symposium on Human Implantation, Madrid, Spain
2000-	Chair, External Advisory Board, K-BRIN, State of Kansas Research Consortium
2001	Co-organizer, 2nd International Workshop on Human Human Implantation, Madrid, Spain
2002	Scientific Advisory Committee, Vth Sapporo International Symposium on

	Ovarian Function
2002	Centocor, Clinical Advisory Board on Endometriosis
2002-	Serono, Consultant on clinical applications of recombinant LH
2002-	Board of Directors, Burroughs Wellcome Fund (Executive Committee: 2004-)
2003-	Ortho-McNeil, Consultant
2003	External Review of the Baker Institute, Cornell University
2004-	Scientific Advisory Board, Specialty Laboratories
2004	Review of the Center for Reproduction Research, Columbia University
2004-	Consultant, Serono Foundation
2005-	Berlex Foundation, Board of Trustees
2005	Reviewer, NIEHS Intramural Programs in Reproduction, Board of Scientific Councillors
2006	Ad Hoc Study Section, NIH Director's Awards
2007	Reviewer, Board of Scientific Counselors, NICHD Intramural Programs

Trainees

Toshinobu Tanaka, M.D.	Professor & Chair, Department of Obstetrics and Gynecology, Akita University
Michael E. Toaff, M.D.	Associate Clinical Professor, Department of Obstetrics and Gynecology, Thomas Jefferson University
Linda A. Schuler, V.M.D., Ph.D.	Professor, Department of Comparative Biosciences University of Wisconsin
Richard W. Tureck, M.D.	Professor, Department of Obstetrics and Gynecology, University of Pennsylvania
John E. Nestler, M.D.	Professor and Chairman, Department of Endocrinology, Department of Medicine, Medical College of Virginia
Emiliano Soto-Romo, M.D.	Vice-Chairman, Department of Obstetrics and Gynecology, University of Chile
Thaddeus G. Golos, Ph.D.	Professor, Department of Obstetrics and Gynecology, University of Wisconsin
Harvey J. Kliman, M.D., Ph.D.	Associate Scientist, Department of Obstetrics and Gynecology, Yale University
Michael A. Feinman, M.D.	Private practice, Obstetrics and Gynecology
Mindy F. Rosenblum, M.D.	Clinical Associate Professor, Department of Pediatrics, Thomas Jefferson University
Susan L. Silavin, Ph.D.	Scientist, Advanced Cardiovascular Systems
Alfredo Ulloa-Aguirre, M.D., Ph.D.	Professor and Director, Reproductive Medicine Unit, IMMS Mexico

John E. Nulsen, M.D.	Professor, Department of Obstetrics and Gynecology, University of Connecticut
Koichiro Takagi, M.D.	Professor and Chairman, Department of Obstetrics and Gynecology, Dainai Hospital, Tokyo Women's Medical College
Lee-Chuan Kao, M.D., Ph.D.	Assistant Professor, Department of Obstetrics and Gynecology, USC
Ritsu Yamamoto, M.D., Ph.D.	Associate Professor, Department of Obstetrics and Gynecology, Hokkaido University
Ruth E. York, Ph.D.	Associate Professor Emeritus, School of Nursing, University of Pennsylvania
Noriaki Sakuragi, M.D., Ph.D.	Professor and Chairman of Gynecology, Hokkaido University
Guy E. Ringler, M.D.	Assistant Clinical Professor, Department of Obstetrics and Gynecology, UCLA Medical School
Susumo Kido, M.D., Ph.D.	Assistant Professor, Department of Obstetrics and Gynecology, Keio University
Mats E. Gafvels, M.D., Ph.D.	Associate Professor, Karolinska University
Samantha Pfeiffer, M.D.	Associate Professor, Department of Obstetrics and Gynecology, University of Pennsylvania
Lanre G. Babalola, V.M.D., Ph.D., D.O.	Assistant Professor, Department of Obstetrics and Gynecology, Texas Tech University
Craig McKnight, M.D., Ph.D.	Clinical Assistant Professor, Department of Obstetrics and Gynecology, Yale University
Hanna Rennert, Ph.D.	Director, Laboratory of Molecular Genetics, Cornell University
Yueh J. Chang, Ph.D.	Research Specialist, Department of Pathology, University of Pennsylvania
Hiroya Matsuo, M.D., Ph.D.	Professor, Department of Health Science, Kobe University
Takashi Ohba, M.D., Ph.D.	Associate Professor, Department of Obstetrics and Gynecology, Kumamoto University
Colin MacCalman, Ph.D.	Associate Professor, Department of Obstetrics and Gynecology, University of British Columbia
Felipe Vadillo-Ortega, M.D., Ph.D.	Professor and Director, Instituto Nacional de Perinatologia, Mexico
Federico Martinez, M.D., Ph.D.	Professor, Department of Biochemistry, Autonomous University of Mexico
Teruo Sugawara, M.D., Ph.D.	Assistant Professor, Department of Biochemistry, Hokkaido University
Futoshi Arakane, M.D., Ph.D.	Instructor, Department of Obstetrics and Gynecology, Hokkaido University
Samuel Parry, M.D.	Associate Professor, Director of Maternal-Fetal Medicine, Department of Obstetrics and Gynecology, University of Pennsylvania

Hanqin Lei, M.D.	Research Associate, Department of Pathology, University of Pennsylvania
Caleb B. Kallen, M.D., Ph.D.	Assistant Professor of Obstetrics and Gynecology, Emory University
Marianthi Kiriakidou, M.D.	Fellow in Rheumatology, Hospital of the University of Pennsylvania
Michiko Watari, M.D.	Instructor, Department of Obstetrics and Gynecology, Hokkaido University, Japan
Hidemichi Watari, M.D.	Associate Professor, Department of Obstetrics and Gynecology, Akita University, Japan
Yoshinori Okamura, M.D., Ph.D.	Assistant Professor, Department of Obstetrics & Gynecology, Kumamoto University
Toshio Fujimoto, M.D.	Assistant Professor, Department of Obstetrics & Gynecology, Akita University
Pedro Ferrand, M.D.	Assistant Professor, Department of Obstetrics and Gynecology, University of Chile
Rossana Sapiro, M.D.	Assistant Professor, Department of Anatomy and Embryology, University of the Republic of Uruguay
Lane K. Christenson, Ph.D.	Assistant Professor, Department of Cell and Molecular Physiology, University of Kansas Medical Center
Hisahiko Hiroi, M.D., Ph.D.	Assistant Professor, Department of Obstetrics and Gynecology, Tokyo University
Tatsuro Kishida, M.D., Ph.D.	Private Practice, Internal Medicine, Tokyo, Japan
Jennifer R. Wood, Ph.D.	Assistant Professor, Department of Physiology, University of Nebraska
Hongyan Wang, Ph.D.	Associate Professor, Institute for Genetics, Fudan University

Bibliography:

Original Papers

1. Strauss, J.F. III, Lindner, H.R.: Maintenance of luteal function during unilateral pregnancy in the rat. *Journal of Reproduction and Fertility* **18**: 129, 1969.
2. Lamprecht, S.A., Lindner, H.R., Strauss J.F. III: Induction of 20 α -hydroxysteroid dehydrogenase in rat corpora lutea by pharmacological blockade of pituitary prolactin secretion. *Biochimica et Biophysica Acta* **187**: 129, 1969.
3. Kraicer, P.F., Strauss, J.F. III: Ovulation block produced by an inhibitor of luteotropin, ergocornine. *Acta Endocrinologica* **65**: 698, 1970.
4. Strauss, J.F. III, Foley B., Stambaugh, R.L.: 20 α -hydroxysteroid dehydrogenase activity in the rabbit. *Biology of Reproduction* **6**: 78, 1972.
5. Strauss, J.F. III, Stambaugh, R.L.: Ovarian dehydrogenase activities during pregnancy in the rabbit. *Proceedings of the Society of Experimental Biology and Medicine* **140**: 1143, 1972.
6. Strauss, J.F. III, Mastroianni, L. Jr., Stambaugh, R.L.L.: Human ovarian enzymes during pregnancy. *Journal of Clinical Endocrinology and Metabolism* **36**: 192, 1973.

7. Strauss, J.F. III, Stambaugh, R.L.: Induction of 20 α -hydroxysteroid dehydrogenase in rat corpora lutea of pregnancy by prostaglandin F2 α . *Prostaglandins* **5**: 73, 1974.
8. Strauss, J.F. III, Sokoloski, J., Caploe, P., Duffy, P., Mintz, G., Stambaugh, R.L.: On the role of prostaglandins in parturition in the rat. *Endocrinology* **96**: 1040, 1975.
9. Gasic, G.J., Gasic, T.B., Strauss J.F. III: Abortifacient effects of *Vibrio cholerae* exo-enterotoxin and endotoxin in mice. *Journal of Reproduction and Fertility* **45**: 315, 1975.
10. Strauss, J.F. III, Seifter, E., Lien, E.L., Goodman, D.B.P., Stambaugh, R.L.: Lipid metabolism in regressing rat corpora lutea of pregnancy. *Journal of Lipid Research* **18**: 296, 1977.
11. Okazaki, T., Strauss J.F. III, Flickinger, G.L.: Lysosomal phospholipase A activities of rat ovarian tissue. *Biochimica et Biophysica Acta* **487**:343, 1977.
12. Strauss, J.F. III, Flickinger, G.L.: Phospholipid metabolism in cells from highly luteinized rat ovaries. *Endocrinology* **101**: 882, 1977.
13. Addonizio, V.P., Strauss J.F. III, Macarak, E., Coleman, R.W., Edmunds, H.L.: Preservation of platelets with prostaglandin E1 during total cardiopulmonary bypass in rhesus monkeys. *Surgery* **83**: 619, 1978.
14. Strauss, J.F. III, Kirsch, T., Flickinger, G.L.: Effects of lysosomotropic agents on progesterin secretion by rat ovarian cells. *Journal of Steroid Biochemistry* **9**: 731, 1978.
15. Schuler, L.A., Flickinger, G.L., Strauss, J.F. III: Effects of luteinizing hormone on the lipid composition of rat ovaries. *Journal of Endocrinology* **78**: 233, 1978.
16. Addonizio, V.P., Strauss, J.F. III, Colman, R.W., Edmunds, H.L.: Effects of prostaglandin E1 on platelet loss during *in vivo* and *in vitro* extracorporeal circulation with a bubble oxygenator. *Journal of Thoracic and Cardiovascular Surgery* **77**: 119, 1979.
17. Toaff, M.E., Strauss J.F. III, Flickinger, G.L., Shattil, S.J.: Relationships of cholesterol supply to luteal mitochondria steroid synthesis. *Journal of Biological Chemistry* **254**: 3799, 1979.
18. Christie, M.H., Strauss J.F. III, Flickinger, G.L.: Effect of reduced blood cholesterol on sterol and steroid metabolism by rat luteal tissue. *Endocrinology*, **105**: 92, 1979.
19. Metzman, M.S., Mastroianni, A., Strauss, J.F. III: Fatty acid composition of unfertilized and fertilized eggs of the sea urchin, *Arbacia punctulata*. *Lipids* **13**: 823, 1978.
20. Schuler, L.A., Scavo, L., Kirsch, T.M., Flickinger, G.L., Strauss, J.F. III: Regulation of de novo biosynthesis of cholesterol and progesterins, and formation of cholesterol ester in rat corpus luteum by exogenous sterol. *Journal of Biological Chemistry* **254**: 8662, 1979.
21. Addonizio, V.P., Smith, J.B., Guiod, L.R., Strauss J.F. III, Colman, R.W., Edmunds, L.H. Jr.: The relationship between thromboxane synthesis and platelet protein release during stimulated extracorporeal circulation. *Blood* **54**: 371, 1979.
22. Addonizio, V.P., Smith, J.B., Strauss, J.F. III, Colman, R.W., Edmunds, L.H.: Thromboxane synthesis and platelet secretion during cardiopulmonary bypass with bubble oxygenator. *Journal of Thoracic and Cardiovascular Surgery* **79**: 91, 1980.
23. Toaff, M.E., Schleyer, H., Strauss, J.F. III: Presence of a low molecular weight inhibitor of succinate-supported cholesterol side chain cleavage in rat ovaries. *Biochimica et Biophysica Acta* **617**: 291, 1980.
24. Schuler, L.A., Toaff, M.E., Strauss J.F. III: Regulation of ovarian cholesterol metabolism: Control of 3-hydroxy-3-methylglutaryl coenzyme A reductase and acyl coenzyme A: cholesterol acetyltransferase. *Endocrinology* **108**: 1476, 1981.
25. Coburn, R.F., Cunningham, M., Strauss, J.F. III: Effect on incubation of guinea pig taenia Coli in potassium-free media on arachidonate release and lipid metabolism. *Biochimica et Biophysica Acta* **664**: 188, 1981.
26. Schuler, L.A., Langenberg, K.K., Gwynne, J.T., Strauss, J.F. III: High density lipoprotein utilization of dispersed rat luteal cells. *Biochimica et Biophysica Acta* **664**: 583, 1981.
27. Christie, M.H., Gwynne, J.T., Strauss, J.F. III: Binding of high density lipoproteins to membranes of luteinized rat ovaries. *Journal of Steroid Biochemistry* **14**: 671, 1981.
28. Rosenblum, M.F., Huttler, C.R., Strauss, J.F. III: Control of sterol metabolism in cultured rat granulosa cells. *Endocrinology* **109**: 1518, 1981.
29. Chander, A., Fisher, A.B., Strauss, J.F. III: Selective stimulation of dipalmitoyl lecithin synthesis by chloroquine in primary cultures of rat granular pneumocytes. *Biochemical Journal* **208**: 651, 1982.
30. Addonizio, V.P., Strauss J.F. III, Chang, L.F., Fisher, C.A., Colman, R.W., Edmunds, L.H. Jr.: Release of lysosomal hydrolases during simulated extracorporeal circulation. *Journal of Thoracic and Cardiovascular Surgery* **84**: 28, 1982.

31. Strauss, J.F. III, MacGregor, L.C., Gwyne, J.T.: Uptake of high density lipoprotein by rat ovaries *in vitro* and dispersed ovarian cells in vitro. Direct correlation of density lipoprotein uptake with steroidogenic activity. *Journal of Steroid Biochemistry* **16**: 525, 1982.
32. Tureck, R.W., Strauss, J.F. III: Progesterone synthesis by luteinized human granulosa cells in culture: The role of de novo sterol synthesis and lipoprotein-carried sterol. *Journal of Clinical Endocrinology and Metabolism* **54**: 367, 1982.
33. Addonizio, V.P., Wetstein, L., Feldman, P., Fisher, C.A., Simson, M.B., Strauss, J.F. III, Harkin, A.H.: Platelet-mediated cardiac ischemia. *Journal of Surgical Research* **33**: 402, 1982.
34. Tanaka, T., Strauss, J.F. III: Stimulation of luteal mitochondrial cholesterol side chain cleavage by cardiolipin. *Endocrinology* **110**: 1592, 1982.
35. Veldhuis, J.D., Klase, P.H., Strauss, J.F. III, Hammond, J.M.: The role of estradiol as a biological amplifier of the actions of follicle stimulating hormone. In vitro studies in swine granulosa cells. *Endocrinology* **111**: 144, 1982.
36. Tureck, R.W., Mastroianni, L., Blasco, L., Strauss, J.F. III: Inhibition of human granulosa cell progesterone secretion by a gonadotropin-releasing hormone agonist. *Journal of Clinical Endocrinology and Metabolism* **54**: 1078, 1982.
37. Veldhuis, J.D., Klase, P.A., Strauss, J.F. III, Hammond, J.M.: Facilitative interactions between estradiol and luteinizing hormone in the regulation of progesterone production by cultured swine granulosa cells: III. Relation to cellular cholesterol metabolism. *Endocrinology* **111**: 441, 1982.
38. Addonizio, V.P., Fisher, C.A., Strauss, J.F. III, Edmunds, L.H. Jr.: Inhibition of human platelet function by verapamil. *Thrombosis Research* **23**: 345, 1982.
39. Tavani, D.M., Tanaka, T., Strauss, J.F. III, Billheimer, J.T.: Regulation of acyl coenzyme A: cholesterol acyltransferase in the luteinized rat ovary: Observations with an improved enzymatic assay. *Endocrinology* **111**: 441, 1982.
40. Addonizio, V.P., Wetstein, L., Fisher, C.A., Feldman, P., Strauss, J.F. III, Harken, A.H.: Thromboxane released from human platelets mediate cardiac ischemia. *Surgery* **92**: 292, 1982.
41. Toaff, M.E., Schleyer, H., Strauss, J.F. III: Metabolism of 25-hydroxycholesterol by rat luteal mitochondria and dispersed cells. *Endocrinology* **111**: 1785, 1982.
42. Chander, A., Claypool, W.D. Jr., Strauss, J.F. III, Fisher, A.B.: Uptake of liposomal phosphatidylcholine by granular pneumocytes in primary culture. *American Journal of Physiology* **245**: C397, 1983.
43. Dugan, J.M., Strauss J.F. III, Touchstone, J.C.: A simplified procedure for thin layer chromatographic separation of amniotic fluid phospholipids. *The Journal of Reproductive Medicine* **29**: 245, 1984.
44. Toaff, M.E., Strauss, J.F. III, Hammond, J.M.: Regulation of cytochrome P-450_{scc} in immature porcine granulosa cells by FSH and estradiol. *Endocrinology* **112**: 1156, 1983.
45. Veldhuis, J.D., Kolp, L.A., Toaff, M.E., Strauss, J.F. III: Mechanisms subserving the tropic actions of insulin on ovarian cells: in vitro studies using swine granulosa cells. *Journal of Clinical Investigation* **72**: 1046, 1983.
46. Filstein, M.R., Cullinan, J.A., Strauss J.F. III: Abberant results in serum β -hCG assays: An infrequent, vexing problem. *Fertility and Sterility* **39**: 714, 1983.
47. Tanaka, T., Billheimer, J.T., Strauss, J.F. III: Luteinized rat ovaries contain a sterol carrier protein. *Endocrinology* **114**: 533, 1984.
48. Paavola, L.G., Strauss, J.F. III: Uptake of lipoproteins by in situ perfused rat ovaries. Identification of binding sites for high density lipoproteins. *Journal of Cell Biology* **97**: 593, 1983.
49. Bongiovanni, M.B., Strauss, J.F. III, Ziselman, B.M., Wurzel, H.A.: Parathyroid response during therapeutic plasma exchange. *Transfusion* **23**: 535, 1983.
50. Shemesh, M., Hansel, W., Strauss, J.F. III: An inhibitor of steroidogenesis in extracts of bovine placenta. *Biology of Reproduction* **29**: 856, 1983.
51. Silavin, S.L., Strauss, J.F. III: Progesterone production by hamster granulosa and luteal cells during short-term incubation. Effects of lipoproteins, compactin and 25-hydroxycholesterol. *Biology of Reproduction* **29**: 1163, 1983.
52. Soto, E., Silavin, S.L., Tureck, R.W., Strauss, J.F. III: Stimulation of progesterone synthesis in luteinized human granulosa cells by human chorionic gonadotropin and 8-bromocyclic AMP. The effect of low density lipoprotein. *Journal of Clinical Endocrinology and Metabolism* **58**: 831, 1984.
53. Filstein, M., Knee, G., Polfiet, M., Strauss, J.F. III: Clinical evaluation of two urine tests for the early diagnosis of pregnancy. *Journal of Reproductive Medicine* **29**: 242, 1984.

54. Chanderbhan, R., Tanaka, T., Strauss, J.F. III, Irwin, D., Noland, B.J., Scallen, T.J., Vahouny, G.V.: Evidence for sterol carrier protein2-like activity in hepatic, adrenal and ovarian cytosol. *Biochemical and Biophysical Research Communications* **117**: 702, 1983.
55. Veldhuis, J.D., Gwynne, J.T., Klase, P.A., Strauss, J.F. III, Demers, L.M.: Role of estradiol as a biological amplifier of gonadotropin action in the ovary: in vitro studies using swine granulosa cells and homologous lipoproteins. *Endocrinology* **114**: 2312, 1984.
56. Shemesh, M., Hansel, W., Strauss, J.F. III: Modulation of bovine placental prostaglandin synthesis by an endogenous inhibitor. *Endocrinology* **115**: 1401, 1984.
57. Shemesh, M., Hanel, W., Strauss, J.F. III: Calcium dependent, cyclic nucleotide-independent steroidogenesis in the bovine placenta. *Proc. Natl. Acad. Sci. U.S.A.* **81**: 6403, 1984.
58. Silavin, S.L., Strauss, J.F. III: Re-evaluation of the effects of cytochalasins on steroidogenesis: Studies on hamster granulosa cells. *Endocrinology* **115**: 1511, 1984.
59. Baron, C.B., Cunningham, M.L., Strauss, J.F. III, Coburn, R.L.: Pharmacochemical coupling on smooth muscle may involve phosphatidylinositol metabolism. *Proc. Natl. Acad. Sci. U.S.A.* **81**: 6899, 1984.
60. Veldhuis, J.D., Strauss, J.F. III, Silavin, S.L., Kopl, L.A.: The role of cholesterol esterification in ovarian steroidogenesis: Studies in cultured swine granulosa cells using a novel inhibitor of acyl coenzyme A: cholesterol acyltransferase. *Endocrinology* **116**: 25, 1985.
61. Addonizio, V.P., Fisher, C.A., Jenkin, B.K., Strauss, J.F. III, Musial, J.F., Edmonds, L.H.: Preservation of human platelets during simulated extracorporeal circulation with iloprost (ZK 36374), a stable analogue of prostacyclin. *Journal of Thoracic and Cardiovascular Surgery* **89**: 926, 1985.
62. Sondheimer, J., Tureck, R., Blasco, L., Strauss, J.F. III, Arger, P. and Mennuti, M. Simultaneous ectopic pregnancy and twin gestations after in vitro fertilization and embryo transfer. *Fertility and Sterility* **43**: 313, 1985.
63. Paavola, L.G., Strauss, J.F. III, Boyd, C.O., Nestler, J.E. Uptake of gold- and 3H-cholesteryl linoleate-labeled human low density lipoprotein by cultured rat granulosa cells. Cellular mechanisms involved in lipoprotein metabolism and their importance to steroidogenesis. *Journal of Cell Biology* **100**: 1235, 1985.
64. Soto, E.A., Tureck, R.W., Strauss, J.F. III. On the effects of prolactin on progesterin secretion by human granulosa cells in culture. *Biology Reproduction* **32**: 541, 1985.
65. Sutton, G.P., Senior, M.B., Strauss, J.F. III, Mikuta, J.J. Estrogen and progesterone receptors in epithelial ovarian malignancies. *Gynecologic Oncology* **23**: 176, 1986.
66. Malter, J.S., Manotti, S.E., Knee, G.R., Goodman, D.B.P., Strauss J.F. III. Identification of hyperthyroid patients by means of a sensitive assay for thyrotropin. *Clinical Chemistry* **31**: 642, 1985.
67. Nestler, J.E., Chacko, G.K., Strauss, J.F. III. Stimulation of rat ovarian cell steroidogenesis by high density lipoproteins modified with tetranitromethane. *Journal of Biological Chemistry* **260**: 7316, 1985.
68. Nestler, J.E., Bamberger, M., Rothblat, G.H., Strauss, J.F. III. Metabolism of high density lipoproteins reconstituted with (3H) cholesteryl ester and (14C) cholesterol in the rat with special reference to the ovary. *Endocrinology* **117**: 502, 1985.
69. Silberstein, L.E., Naryshkin, S., Haddad, J.J. and Strauss J.F. III. Calcium homeostasis during therapeutic plasma exchange. *Transfusion* **26**: 151, 1986.
70. Naryshkin, S., AW, C., Filstein, M., Murphy, J.G., Strauss, J.F. III, Kiechle, F.L. and Jacobson, S. Comparison of the performance of serum and urine human chorionic (hCG) immunoassays in the evaluation of gynecologic patients presenting to the emergency department. *Annals of Emergency Medicine* **14**: 1074, 1985.
71. Golos, T.G., Soto, E.A., Tureck, R.W., Strauss, J.F. III. hCG and 8-bromo-adenosine-3', 5'-monophosphate stimulate 125I-LDL uptake and metabolism by luteinized human granulosa cells in culture. *Journal of Clinical Endocrinology and Metabolism* **61**: 633, 1985.
72. Addonizio, V.P., Fisher, C.A., Strauss, J.F. III, Wachtgoge, Y.T., Colman, R.W., Josephson, M.E. Inhibition of human platelet function by diltiazem and verapamil. *American Journal of Physiology* **250**: H366, 1986.
73. Knee, G.R., Feinman, M.A., Strauss, J.F. III, Blasco, L., Goodman, D.B.P. Detection of the ovulatory luteinizing (LH) surge with a semiquantitative urinary LH assay. *Fertility and Sterility* **44**: 707, 1985.

74. Golos, T.G., Strauss, J.F. III. Regulation of low density lipoprotein receptor synthesis in cultured luteinized human granulosa cells by human chorionic gonadotropin and 8-bromo-cyclic AMP. *Journal of Biological Chemistry* **260**: 14399, 1985.
75. Soto, E.A., Kliman, H.J., Strauss, J.F. III, Paavola, L.G. Gonadotropins and cyclic AMP alter the morphology of cultured human granulosa cells. *Biology of Reproduction* **34**: 559, 1986.
76. Kliman, H.J., Nestler, J.E., Sermasi, E., Sanger, J.M., Strauss, J.F. III. Purification, characterization and in vitro differentiation of cytotrophoblasts from human term placentae. *Endocrinology* **118**: 1567, 1986.
77. Ben Rafael-Z, Kopf, G.S., Blasco, L., Flickinger, G.L., Tureck, R.W., Strauss, J.F. III, Mastroianni, L.M. Jr. Follicular maturation parameters associated with failure of oocyte retrieval, fertilization and cleavage in vitro. *Fertility and Sterility* **40**: 51, 1986.
78. Douville, P., Cembrowski, G.S., Strauss, J.F. III. The influence of the between and within run components of variation on the mean rule 100 *Journal of Automatic Chemistry* **8**: 85, 1986.
79. Veldhuis, J.D., Nestler, J.E., Strauss, J.F. III and Gwynne, J.T. Insulin regulates low-density lipoprotein metabolism by swine granulosa cells. *Endocrinology* **118**: 2242, 1986.
80. Feinman, M.A., Kliman, H.J., Caltabiano, S., Strauss, J.F. III. 8-bromo-3',5'-adenosine monophosphate stimulates the endocrine activity of human cytotrophoblasts in culture. *Journal of Clinical Endocrinology Metabolism* **63**: 1211, 1986.
81. Ben-Rafael, Strauss III J.F., Mastroianni, L.M., Flickinger, G.L. Differences in ovarian stimulation in human menopausal gonadotropin treated women may be related to follicle stimulating hormone accumulation. *Fertility and Sterility* **46**: 586, 1986.
82. Ben-Rafael, Z., Mastroianni, L.M., Meloni, F., Strauss, J.F. III., Flickinger, G.L. Changes in serum sex-hormone binding globulin, free estradiol and testosterone during gonadotropin treatment. *Fertility and Sterility* **46**, 593, 1986.
83. Golos, T.G., August, A.M., Strauss, J.F. III. Expression of low density lipoprotein receptor in cultured human granulosa cells: Regulation by human chorionic gonadotropin, cyclic AMP and sterol. *Journal of Lipid Research* **27**: 1089, 1986.
84. Nestler, J.E., Clore, J.N., Strauss, J.F. III, Blackard, W.G. An examination of the effects of extreme hyperinsulinemia on plasma testosterone, progesterone DHEA-S and cortisol levels in normal females and in a female with HAIR-AN syndrome. *Journal of Clinical Endocrinology and Metabolism* **64**: 180, 1987.
85. Ben Rafael, Z., Meloni, F., Strauss, J.F. III, Blasco, L., Mastroianni, L., Flickinger, G.L. Relationships between polypronuclear fertilization and follicular fluid hormones in gonadotropin treated women. *Fertility and Sterility* **47**: 284, 1987.
86. Myers, E.R., Sondheimer, S.J., Freeman, E.W., Strauss, J.F. III, Rickels, K. Serum progesterone levels following vaginal administration of progesterone during the luteal phase. *Fertility and Sterility* **47**: 71, 1987.
87. Jacobs, M.H., Balasch, J., Gonzalez-Merlo, J., Vanred, J., Wheeler, C., Strauss, J.F. III, Wheeler, J.E., Lyttle, C.R. Endometrial cytosolic and nuclear receptors in the luteal phase defect. *Journal of Clinical Endocrinology and Metabolism* **64**: 472, 1987.
88. Nestler, J.E., McLeod, J.F., Kowalski, M.A., Strauss, J.F. III, Haddad, J. Detection of vitamin D binding protein on the surface of cytotrophoblasts isolated from human placentae. *Endocrinology* **120**: 1996, 1987.
89. Addonizio, V.P., Fisher, C.A., Strauss, J.F. III, Rosato, E.F., Edmunds, L.H., Harken, A.H., Rickles, F.R., Ewan, V.A., Inouye, W.Y. Preliminary characterization of the procoagulant material in human ascites. *Surgery* **101**: 753, 1987.
90. Golos, T.G., Strauss, J.F. III. Regulation of LDL receptor gene expression in cultured human granulosa cells: Roles of human chorionic gonadotropin, 8-bromo-cAMP, and protein synthesis. *Molecular Endocrinology* **1**: 321, 1987.
91. Ulloa-Aquirre, A., August, A.M., Golos, T.G., Kao, L-C., Sakuragi, N., Kliman, H.J., Strauss, J.F. III. 8-bromo-3'-5'-adenosine monophosphate regulates expression of chorionic gonadotropin and fibronectin in human cytotrophoblasts. *Journal of Clinical Endocrinology and Metabolism* **64**: 1002, 1987.
92. Laposata, E.A., Laboda, H.M., Glick, J.M., Strauss, J.F. III. Hepatic lipase: Synthesis processing and secretion by isolated rat hepatocytes. *Journal Biological Chemistry* **262**: 5333, 1987.
93. Ben Rafael, Z., Arandash-Durand, B., Strauss, J.F. III, Flickinger, G.L. Thyroid function tests in pergonal-induced cycles. *Fertility and Sterility* **48**: 318, 1987.

94. Golos, T.G., Miller, W.L., Strauss, J.F. III. Human chorionic gonadotropin and 8-bromo-cyclic AMP promote an acute increase in cytochrome P450_{scc} and adrenodoxin mRNAs in cultured human granulosa cells by a cycloheximide-insensitive mechanism. *Journal of Clinical Investigation* **80**: 896, 1987.
95. Queenan, J.T. Jr., Kao, L-C., Arboleda, C.E., Ulloa-Aquirre, A., Golos, T.G., Cines, D.B., Strauss J.F. III. Regulation of urokinase-type plasminogen activator production by cultured human cytotrophoblasts. *Journal of Biological Chemistry* **262**: 10903, 1987.
96. Douville, P., Cembrowski, G.S., Strauss J.F. III. Evaluation of the average of patients: application to endocrine assays. *Clinica Chimica Acta* **167**: 173, 1987.
97. Nulsen, J.E., Woolkalis, M.J., Kopf, G.S., Strauss, J.F. III. Adenylate cyclase in human cytotrophoblasts: characterization and its role in modulating hCG secretion. *Journal of Clinical Endocrinology and Metabolism* **66**: 258, 1988.
98. Veldhuis, J.D., Nestler, J.E., Strauss, J.F. III. The insulin-like growth factor, omatomedin C modulates low density lipoprotein metabolism by swine granulosa cells. *Endocrinology* **121**: 340, 1987.
99. Shemesh, J., Strauss, J.F. III, Hansel, W., Shore, L.S., Izhar, M. Control of bovine placental progesterone synthesis: Roles of cholesterol availability and calcium-activated systems. *Journal of Steroid Biochemistry* **31**: 835, 1988.
100. Choudhury-Roy, S., Sen-Majumdar, A., Murth, V., Mishra, V.S., Kliman, H.J., Nestler, J.E., Strauss, J.F. III, Das, M. Biosynthesis and turnover of a 34,000 molecular weight protein growth factor in human cytotrophoblasts. *European Journal of Biochemistry* **172**: 177, 1988.
101. Picado-Leonard, J., Voutilainen, R., Kao, L-C., Chung, B-C., Strauss, J.F. III, Miller, W.L. Human adrenodoxin: cloning of three cDNAs and cycloheximide-enhancement in JEG-3 cells. *Journal of Biological Chemistry* **263**: 3240, 1988.
102. Golos, T.G., Strauss, J.F. III. 8-bromoadenosine cyclic 3', 5'-phosphate rapidly increases 3-hydroxy-3-methylglutaryl coenzyme A reductase mRNA in human granulosa cells: Role of cellular sterol balance in controlling the response tropic stimulation. *Biochemistry* **27**: 3503, 1988.
103. Benadiva, C.A., Ben-Rafael, Z., Strauss J.F. III., Mastroianni, L., Jr., Flickinger, G.L. Ovarian response of individuals to different doses of human menopausal gonadotropin (hMG). *Fertility and Sterility* **49**: 813, 1988.
104. Takagi, K., Hoffman, E.K., Strauss, J.F. III. The upstream promoter of the human LDL receptor gene does not contain a cyclic AMP response element. *Biochemical and Biophysical Research Communications* **152**: 143, 1988.
105. Ringler, G.E., Kao, L-C., Miller, W.L., Strauss, J.F. III. Effects of 8-bromo-cAMP on expression of endocrine functions by cultured human trophoblast cells. Regulation of specific mRNAs. *Molecular and Cellular Endocrinology* **61**: 13, 1989.
106. Ringler, G.E., Coutifaris, C., Strauss, J.F. III, Allen, J.I., Geier, M. Accumulation of colony stimulating factor-1 in amniotic fluid during human pregnancy. *American Journal of Obstetrics and Gynecology* **160**: 655, 1989.
107. Kao, L-C., Caltabiano, S., Wu S., Strauss, J.F. III, Kliman, H.J. The human villous cytotrophoblast: interactions with extracellular matrix proteins, endocrine function and cytoplasmic differentiation in the absence of syncytium formation. *Developmental Biology* **130**: 693, 1988.
108. York, R., Freeman, E., Lowery, B., Strauss, J.F. III. Characteristics of premenstrual syndrome. *Obstetrics and Gynecology* **73**: 601, 1989.
109. Hixenbaugh, E.A., Sullivan, T.R., Strauss, J.F. III, Laposata, E.A., Komaromy, M., Paavola, L.G. Hepatic lipase in the rat ovary: ovaries cannot synthesize hepatic lipase but accumulate it from the circulation. *Journal of Biological Chemistry* **264**: 4222, 1989.
110. Shalem, Z., Izhar M., Shore, L.S., Shemesh, M., Hansel, W., Strauss, J.F. III. Control of bovine placental progestin synthesis: Calcium dependent steroidogenesis is modulated at the site of cholesterol side chain cleavage enzyme. *Journal of Steroid Biochemistry* **31**:835, 1988.
111. Ringler, G.E., Kallen, C.B., Strauss, J.F. III. Regulation of human trophoblast function by glucocorticoids: dexamethasone promotes increased secretion of chorionic gonadotropin. *Endocrinology* **124**: 1625, 1989.
112. Feinberg, R.F., Kao, L-C., Haimowitz, J.E., Queenan, J.T. Jr., Wun, T-C., Strauss, J.F. III, Kliman, H.J. Plasminogen activator inhibitor types I and II in human trophoblasts: PAI-1 is an immunocytochemical marker of invading trophoblasts. *Laboratory Investigation* **61**:20, 1989.

113. Takagi, K., Alvarez, J.G., Favata, M.F., Trzaskos, J.M., and Strauss, J.F. III. Control of the LDL receptor gene promoter activity. Ketoconazole inhibits serum-lipoprotein but not oxysterol suppression of gene transcription. *Journal of Biological Chemistry* **264**: 12352, 1989.
114. Tremblay, Y., Ringler, G.E., Morel YI, Mohandas, T.K., Labrie F., Strauss, J.F. III., Miller, W.L. Regulation of the gene for estrogenic 17-ketosteroid reductase lying on chromosome 17 cen→q 25. *Journal of Biological Chemistry* **264**: 20458, 1989.
115. Babalola, G.O., Coutifaris, C., Soto, E.A., Kliman, H.J., Shuman, H., Strauss, J.F. III. Aggregation of dispersed human cytotrophoblastic cells: lessons relevant to the morphogenesis of the placenta. *Developmental Biology* **137**:100, 1990.
116. Yamamoto, R., Kao, L.-C., McKnight, L.E., Strauss, J.F. III. Cloning and sequence of cDNA for human placental cytokeratin 8. Regulation of the mRNA in trophoblastic cells by cAMP. *Molecular Endocrinology* **4**:370, 1990.
117. Billheimer, J.T., Strehl, L.L., Davis, G.L., Strauss, J.F. III, Davis, L.G. Characterization of a cDNA encoding rat sterol carrier protein₂ DNA **9**:159, 1990.
118. Rennert, H., Fischer, R.T., Alvarez, J.G., Trzaskos, J.M., Strauss, III. Generation of regulatory oxysterols: 26-hydroxylation of cholesterol by ovarian mitochondria. *Endocrinology* **11**:105, 1990.
119. Spicer, L.J., Kao, L.-C., Strauss, J.F. III, Hammond, J.M. 2-Hydroxyestradiol enhanced progesterone production by porcine granulosa cells: Dependence on de novo cholesterol synthesis and stimulation of cholesterol side-chain cleavage activity and cytochrome P450_{scc} mRNA levels. *Endocrinology* **127**:2763, 1990.
120. Su, P., Rennert, H., Shayiq, R.M., Yamamoto, R., Zheng, Y.-M., Addya, S., Strauss, J.F. III, Avadhani, N.G. A cDNA encoding a rat mitochondrial cytochrome P450 catalyzing both the 26-hydroxylation of cholesterol and 25-hydroxylation of vitamin D₃: gonadotropic regulation of the cognate mRNA in ovaries. *DNA and Cell Biology* **9**:657, 1990.
121. Yamamoto, R., Kallen, C.B., Babalola, G.O., Rennert, H., Billheimer, J.T., Strauss, J.F., III. Cloning and expression of a cDNA encoding human sterol carrier protein ₂. *Proc. Natl. Acad. Sci. U.S.A.* **88**:463, 1991.
122. He, Z., Yamamoto, R., Furth, E.E., Schantz, L.J., Naylor, S.L., George, H., Billheimer, J.T., Strauss, III, J.F. cDNAs encoding members of a family of proteins related to human sterol carrier protein 2 and assignment of the gene to human chromosome 1p21-pter, *DNA and Cell Biology* **10**:559, 1991.
123. Coutifaris, C., Kao, L.-C., Sehdev, H.M., Chin, U., Babalola, G.O., Blaschuk, O., Strauss, III, J.F. E-cadherin expression during the differentiation of human trophoblasts. *Development* **113**: 767, 1991.
124. Rennert, H., Amsterdam, A., Billheimer, J.T., and Strauss, III, J.F. Regulated expression of sterol carrier protein₂ in the ovary. A key role for cyclic AMP. *Biochemistry* **30**:11280, 1991.
125. Baker, M.E., Billheimer, J.T. and Strauss, III, J.F. Similarity between the amino-terminal portion of mammalian 58-Kd sterol carrier protein (SCP_x) and *Escherichia Coli* Acetyl-co Acyltransferase: Evidence for a gene fusion in SCP_x. *DNA and Cell Biology* **10**: 695, 1991.
126. Chang, Y.J., McCabe R.T., Rennert, H., Budarf, M.C., Sayegh, R.J., Emanuel, B.S., Skolnick, P., Strauss, J.F. III. The human peripheral-type benzodiazepine receptor regional mapping of the gene and characterization of the receptors expressed from cDNA. *DNA and Cell Biology* **11**:471, 1992.
127. Roff, C.F., Pastuszyn, A., Strauss, J.F. III, Billheimer, J.T., Vanier, Marie T., Brady, R.O., Scallen, T.J. and Pentchev, P.G. Deficiencies in Sex-Regulated Expression and Levels of Two Hepatic Sterol Carrier Proteins in a Murine Model of Niemann-Pick Type C Disease. *Journal of Biological Chemistry* **267**: 15902, 1992.
128. Gafvels, M.E., Coukos, G., Sayegh, R., Coutifaris, C., Strickland, K., and Strauss, J.F. III. Regulated expression of the trophoblast α 2-macroglobulin receptor/low density lipoprotein receptor protein: differentiation and cAMP modulate protein and mRNA levels. *Journal of Biological Chemistry* **267**: 21230, 1992.
129. Foster, J.D., Strauss, III, J.F., Paavola, L.G. Cellular events involved in hormonal control of receptor-mediated endocytosis: regulation occurs at multiple sites in the LDL pathway, including steps beyond the receptor. *Endocrinology* **132**:337, 1993.
130. Hixenbaugh, E.H., Strauss, III, J.F., Paavola, L.G. Establishment of heterogeneity among blood vessels: hormone-influenced appearance of hepatic lipase in specific subsets of ovarian microvessels. *Anatomical Record* **235**:437, 1993.

131. Matsuura, JE, George HJ, Ramachandran N, Alvarez JG, Strauss, III JF, Billheimer, JT. Expression of the mature and pro-form of human sterol carrier protein 2 in *E. coli* alters bacterial lipids. *Biochemistry* **32**:567, 1993.
132. Pfeifer, S.M., Sakuragi, N., Ryan, A., Johnson, A.L., Deeley, R.G., Billheimer, J.T., Baker, M.E., Strauss, III, J.F. Chicken sterol carrier protein2/sterol carrier protein: cDNA cloning reveals evolutionary conservation of structure and regulated expression. *Archives of Biochemistry and Biophysics* **304**:287, 1993.
133. Kido, S., Sakuragi, N., Bronner, M.P., Sayegh, R., Berger, R., Patterson, D. and Strauss, III, J.F. DZ1S418E identifies a cAMP-regulated gene located on chromosome 21q22.3 that is expressed in placental syncytiotrophoblast and choriocarcinoma cells. *Genomics***17**:256, 1993.
134. Roff, C.F., Strauss III J.F., Goldin E., Jaffe, H., Patterson, M.C., Agritellis, G.C., Hibbs, A.M., Garfield, M., Brady, R.O., Pentchev, P.G. Pleiotropic deficiencies result from attenuated testosterone synthesis in Niemann-Pick type C male mice. *Endocrinology*:2913, 1993.
135. Lin, D., Chang, Y.J., Strauss III J.F., Miller, W.L. The human peripheral benzodiazepine receptor gene: cloning and characterization of alternative splicing normal tissues and in a patient with congenital lipid adrenal hyperplasia. *Genomics***18**:643, 1993.
136. Coukos, G., Gafvels, M.E., Wisel, S., Ruelaz, E.A., Strickland, D.K., Strauss, III, J.F., Coutifaris, C. Expression of α 2-macroglobulin receptor/low density lipoprotein receptor-related protein (LRP) and the 39 kDa receptor associated protein RAP) in human trophoblasts. *American Journal of Pathology* **144**:383, 1994.
137. Gafvels, M.E., Caird, M., Britt, D., Jackson, C.L., Patterson, D., Strauss, III, J.F. Cloning of a cDNA encoding a putative human very low density lipoprotein/lipoprotein E receptor and assignment of the gene to chromosome 9pter-p23. *Somatic Cell and Molecular Genetics* **19**:557, 1993.
138. Sakuragi, N., Matsuo, H., Coukos, G., Furth, E.E., Bronner, M.P., Van Arsdale, C.M., Krajewsky, S., Reed, J.C. and Strauss, III, J.F. Differentiation dependent expression of the BCL-2 proto-oncogene in the human trophoblast lineage. *Journal of the Society for Gynecologic Investigation* **1**:164, 1994.
139. Vesa, J., Hellsten, E., Barnoski, B.L., Emanuel, B.S., Billheimer, J.T., Mead, S., Cowell, J.K., Strauss, III, J.F. and Peltonen, L. Assignment of sterol carrier protein X/sterol carrier protein 2 to 1p32 and exclusion as the causative gene for infertile neuronal ceroid lipofuscinosis. *Human Molecular Genetics* **3**:341, 1994.
140. McGann, K.A., Collman, R., Kolson, D.L., Gonzalez-Scarano, F., Coukos, G., Coutifaris, C., productive placental cell cultures. *Journal of Infectious Diseases* **169**:746, 1994.
141. Daiter, E., Braunstein, G.D., Snyder, P.J., Coutifaris, C., Mastroianni, L., Jr., Pavlou, S.N., Strauss, III, J.F. Gonadotrophin-releasing hormone-dependent chorionic gonadotropin secretion in a menopausal woman. *Journal of Clinical Endocrinology and Metabolism* **78**:1293, 1994.
142. Gafvels, M.E., Paavola, L.G., Boyd, C.O., Nolan, P.M., Wittmaack, F., Chawla, A.J., Lazar, M.A., Bucan, M., Angelin, B., Strauss, III, J.F. Cloning of a complementary deoxyribonucleic acid encoding the murine homolog of the very low density lipoprotein/apolipoprotein-E receptor: Expression pattern and assignment of the gene to mouse chromosome 19. *Endocrinology* **135**:387, 1994.
143. Matsuo, H., Strauss III, J.F. Peroxisome proliferators and retinoids effect JEG-3 choriocarcinoma cell function. *Endocrinology* **135**:1135, 1994.
144. Landers, J.E., Haines, D.L., Strauss III, J.F., George, D.L. Enhanced translation: A novel mechanism of mdm2 oncogene overexpression identified in human tumor cells. *Oncogene* **9**:2745, 1994.
145. Battey, F., Gafvels, M.E., FitzGerald, D.J., Argraves, W.S., Chappell, D.A., Strauss III, J.F., Strickland, D.K. The 39 kDa receptor associated protein regulates ligand binding by the very low density lipoprotein receptor. *Journal of Biological Chemistry* **269**:2673, 1994.
146. Wittmaack, F., Gafvels, M.E., Bronner, M., Matsuo, H., McCrae, K.R., Tamaszewski, J., Robinson, S.L., Strickland, D.K., Strauss, III, J.F. Localization and regulation of the human VLDL/apo E receptor. Trophoblast expression predicts a role for the receptor in placental lipid transport. *Endocrinology* **136**:340, 1994.
147. Ohba, T., Rennert, H., Pfeifer, S.M., He, Z., Yamamoto, R., Holt, J.A., Billheimer, J.T. and Strauss, J.F. III The structure of the human sterol carrier protein X/sterol carrier protein 2 gene. *Genomics* **24**:370-374, 1994.
148. Vadillo-Ortega, F., Gonzalez-Avila, G., Furth, E.E., Lei, H., Muschel, R., Stetler-Stevenson, W., Strauss, J.F. III 92 kDa type-IV collagenase (matrix metalloproteinase-9) activity in human amniochorion increases with labor. *American Journal of Pathology* **146**:148, 1995.

149. Lei, H., Vadillo-Ortega, F., Paavola, L.G. and Strauss, III, J.F. 92 kDa gelatinase (matrix metalloproteinase-9) is induced in rat amnion immediately prior to parturition. *Biology of Reproduction* **53**:339, 1995.
150. Paavola, L.G., Furth, E.E., Delgado, V., Boyd, C.O., Jacobs, C.C., Lei, H. and Strauss, III, J.F. Striking changes in the structure and organization of rat fetal membranes precede parturition. *Biology of Reproduction* **53**:321, 1995.
151. Lin, D., Sugawara, T., Strauss III, J.F., Clark, B.J., Stocco, D.M., Saenger, P., Rogol, A., Miller, W.L. Role of steroidogenic acute regulatory protein in adrenal and gonadal steroidogenesis. *Science* **267**:1828, 1995.
152. Sugawara, T., Holt, J.A., Driscoll, D., Strauss III, J.F., Lin, D., Miller, W.L., Patterson, D., Clancy, K.P., Hart, I.M., Clark, B.J., and Stocco, D.M. Human steroidogenic acute regulatory protein (STAR): Functional activity in COS cells, tissue. Specific expression, mapping of the structural gene to 8 p11.2 and a pseudo gene to chromosome 13. *Proceedings of National Academic Sciences U.S.A.* **92**:4778, 1995.
153. Payne, D.W., Shackleton, C., Toms, H., Ben-Shlomo, I., Kol, S., de Moura, M., Strauss III, J.F. and Adashi, E.Y. A novel, non-hepatic hydroxycholesterol 7 α -hydroxylase which is markedly stimulated by interleukin-1 β : Characterization in the immature rat ovary. *Journal of Biological Chemistry* **270**:1888, 1995.
154. Ohba, T., Holt, J.H., Billheimer, J.T. and Strauss, III, J.F. The human sterol carrier protein X/sterol carrier protein 2 gene has two promoters. *Biochemistry* **34**:10660, 1995.
155. Sugawara, T., Lin, D., Holt, J.A., Martin, K.O., Javitt, N.B., Miller, W.L., and Strauss, III, J.F. Structure of the human steroidogenic acute regulatory protein (StAR) gene: StAR stimulates mitochondrial cholesterol 27-hydroxylase activity. *Biochemistry* **34**: 12506, 1995.
156. Argraves, K.M., Battey, F.D., MacCalman, C.D., McCrae, K.R., Gafvels, M.E., Kozarsky, K.F. Chappell, D.A., Strauss, III, J.F. and Strickland, D.K. The very low density lipoprotein receptor is expressed in human endothelial cells and mediates the cellular catabolism of lipoprotein lipase and urokinase-plasminogen activator inhibitor type I complexes. *Journal of Biological Chemistry* **270**:26550, 1995.
157. Vadillo-Ortega, F., Hernandez, M.A., Gonzalez-Avila, G., Bermejo, L., Iwata, K., and Strauss, III, J.F. Increased matrix metalloproteinase activity and reduced tissue inhibitor of metalloproteinases-1 levels in amniotic fluids from pregnancies complicated by premature rupture of membranes. *American Journal of Obstetrics and Gynecology* **174**:1371, 1995.
158. Tee, M.K., Lin, D., Sugawara, T., Holt, J.A., Guigen, Y., Buckingham, B., Strauss, III, J.F. and Miller, W.L. T-A transversion 11 bp from a splice acceptor site in the human gene for steroidogenic acute regulatory protein causes congenital lipid adrenal hyperplasia. *Human Molecular Genetics* **4**:2299, 1995.
159. MacCalman, C.D., Furth, E.E., Omigbodun, A., Kozarsky, K.F., Coutifaris, C., Strauss III, J.F. Transduction of human trophoblast cells by recombinant adenoviruses is differentiation dependent. *Biology of Reproduction* **54**:682, 1996.
160. MacCalman, C.D., Furth, E.E., Omigbodun, A., Bronner, M., Coutifaris, C., and Strauss, III, J.F. Regulated expression of cadherin-11 in human epithelial cells: A role for cadherin-11 in trophoblast-endometrium interactions. *Developmental Dynamics* **206**:201, 1996.
161. Mulhaupt, H.A.B., Gafvels, M.E., Jin, H., Arenas-Elliott, C., Goldman, B.I., Strauss, III, J.F., Angelin, B., Warhol, M.J., and McCrae, K.R. Expression of very low density lipoprotein (VLDL) receptor in the vascular wall: Analysis of human tissues by in-situ hybridization and immunohistochemistry. *American Journal of Pathology* **148**: 1985, 1996.
162. Daiter, E., Omigbodun, A., Wang, S., Hawkins D., Strauss, III, J.F., Hoyer, J.R., Coutifaris, C. Cell differentiation and endogenous cyclic AMP regulate osteopontin expression in human trophoblasts. *Endocrinology* **137**:1785, 1996.
163. Kozarsky, K.F., Jooss, K., Donahee, M., Strauss, III, J.F., Wilson, J.M. Effective treatment of familial hypercholesterolaemia in the mouse model using adenovirus-mediated transfer of the VLDL receptor gene *Nature Genetics* **13**:54, 1996.
164. Welch, C.L., Xia, Y-R., Billheimer, J.T., Strauss, III, J.F., Lusi, A.J. Assignment of the mouse sterol carrier protein gene (scp2) to chromosome 4. *Mammalian Genome* **7** : 624, 1996.
165. Sugawara, T., Holt, J.A., Kiriakidou, M., Strauss, III, J.F. Steroidogenic factor-1-dependent promoter activity of the human steroidogenic acute regulatory protein (StAR) gene. *Biochemistry* **35**: 9052, 1996.
166. Kiriakidou, M., McAllister, J.M., Sugawara, T., Strauss III, J.F. Expression of steroidogenic acute regulatory protein (StAR) in the human ovary. *Journal of Clinical Endocrinology and Metabolism* **82**: 1776, 1996.

167. Lei, H., Furth, E.E., Kalluri, R., Chiou, T., Tilly, K.I., Tilly, J.L., Elkon, K.B., Jeffrey, J.J., Strauss III, J.F. A program of cell death and extracellular matrix degradation is activated in the amnion before the onset of labor. *Journal of Clinical Investigation* **98**: 1971, 1996.
168. Arakane, F., Sugawara, T., Nishino, H., Liu, Z., Holt, J.A., Pain, D., Stocco, D.M., Miller, W.L. Steroidogenic acute regulatory protein (StAR) retains activity in the absence of its mitochondrial import sequence: Implications for the mechanism of StAR action. *Proceedings of the National Academy of Sciences* **93**: 2142, 1996.
169. Bose, H., Sugawara, T., Strauss III, J.F., Miller, W.L. et al. Genetics and pathophysiology of congenital lipid adrenal hyperplasia. *New England Journal of Medicine* **335**: 1870, 1996.
170. Martinez, F., Kiriakidou, M., Strauss III, J.F. Structural and functional changes in mitochondria associated with trophoblast differentiation: Methods to isolate enriched preparations of syncytiotrophoblast mitochondria. *Endocrinology* **138**: 2177, 1997.
171. Nakae, J., Tajima, T., Sugawara, T., Arakane, F., Hanaki, K., Hotzubo, T., Igarashi, N., Igarashi, Y., Ishii, T., Koda, N., Kando, T., Kohno, H., Nakagawa, Y., Tachibana, K., Kakeshima, Y., Tsubouchi, K., Strauss, III, J.F., Fujieda, K.. Analysis of the steroidogenic acute regulatory protein (StAR) gene in Japanese patients with congenital lipid adrenal hyperplasia. *Human Molecular Genetics* **6**: 571, 1997.
172. Fujieda, K., Tajima, T., Nakae, J., Sagishima, S., Tachibana, K., Suwa, S., Sugawara, T., Strauss III, J.F. Spontaneous puberty in 46, XX subjects with congenital lipid adrenal hyperplasia. Ovarian steroidogenesis is spared to some extent despite inactivating mutations in steroidogenic acute regulatory protein (StAR) gene. *Journal of Clinical Investigation* **99**: 1265, 1997.
173. Sugawara, T., Kiriakidou, M., McAllister, J.M., Kallen, C.B., Strauss III, J.F. Multiple steroidogenic factor 1 binding elements in the human steroidogenic acute regulatory protein gene 5'-flanking region are required for maximal promoter activity and cyclic AMP responsiveness. *Biochemistry* **35**: 9052, 1997.
174. Van Deerlin, P.G., Cekleniak, N., Coutifaris, C., Boyd, J., Strauss III, J.F. Evidence for the oligoclonal origin of the granulosa cell population of the mature human follicle. *Journal of Clinical Endocrinology and Metabolism* **82**: 3019, 1997.
175. Carstea, E.D., Morris, J.A., Coleman, K.G., Loftus, S.K., Zhang, D., Cummings, S.C., Gu, J., Rosenfeld, M.A., Pavan, W.J., Krizman, D.B., Nagle, J., Polymeropoulos, M.H., Sturley, S.L., Ioannou, Y.A., Higgins, M.E., Comly, M., Cooney, A., Brown, A., Kaneski, C.R., Blanchette-Mackie, E.J., Dwyer, N.K., Neufeld, E.B., Chang T.-Y., Liscum, L., Strauss III, J.F., Ohno, K., Zeigler, M., Carmi, R., Sokol, J., Markie, D., O'Neill, R.R., van Diggelen, O.P., Elleder, M., Patterson, M.C., Brady, R.O., Vanier, M.J., Pentchev, P.G., Tagle, D.A. Niemann-Pick C1 disease gene: Homology to mediators of cholesterol homeostasis. *Science* **227**: 228, 1997.
176. Watari, H., Arakane, F., Moog-Lutz, C., Kallen, C.B., Tomasetto, C., Gerton, G.L., Rio, M.-C., Baker, M.E., Strauss III, J.F. MLN64 contains a domain with homology to the steroidogenic acute regulatory protein (StAR) that stimulates steroidogenesis. *Proceedings of the National Academy of Sciences U.S.A.* **94**: 8462, 1997.
177. Pollack, S.E., Furth, E.E., Kallen, C.B., Arakane, F., Kiriakidou, M., Kozarsky, K.F., Strauss III, J.F. Localization of the steroidogenic acute regulatory protein (StAR) in human tissues. *Journal of Clinical Endocrinology and Metabolism* **82**: 42, 43, 1997.
178. Kiriakidou, M., Driscoll, D.A., Lopez-Guisa, J.M., Strauss III, J.F. Cloning and expression of primate Daxx cDNAs and mapping of the human gene to chromosome 6p21.3 in the MHC region. *DNA and Cell Biology* **16**: 1289, 1997.
179. Arakane, F., King, S.R., Du, Y., Kallen, C.B., Walsh, L.P., Watari, H., Stocco, D.M., Strauss III, J.F. Phosphorylation of steroidogenic acute regulatory protein (StAR) modulates its steroidogenic activity. *Journal of Biological Chemistry* **272**: 32656-32662, 1997.
180. Parry S, Holder, J., Halterman, M.W., Weitzman M.D., Davis, A.R., Federoff, H., Strauss III, J.F. Transduction of human trophoblast cells by replication-deficient recombinant viral vectors: Promoting cellular differentiation affects virus entry. *American Journal of Pathology* **152**: 1521, 1998.
181. Arakane, F., Kallen, C.B., Watari, H., Foster, J.A., Sepuri, N.B.V., Pain, D., Stayrook, S.E., Lewis, M., Gerton, G.L., Strauss III, J.F. The mechanism of action of steroidogenic acute regulatory protein (StAR): StAR acts on the outside of mitochondria to stimulate steroidogenesis. *Journal of Biological Chemistry* **273**: 16339-16345, 1998.
182. Lei, H., Furth, E.E., Kalluri, R., Wakenell, P., Kallen, C.B., Jeffrey, J.J., Leboy, P.S., Strauss III, J.F. Induction of matrix metalloproteinases and collagenolysis in chick embryonic membranes prior to hatching. *Biology of Reproduction* **60**: 183, 1998.

183. Lei, H., Kalluri, R., Furth, E.E., Baker, A.H., Strauss III, J.F. Rat amnion type IV collagen composition and metabolism: Implications for membrane breakdown. *Biology of Reproduction* **60**: 176, 1998.
184. Christenson, L.K., McAllister, J.M., Martin, K., Javitt, N.B., Osborne, T.F., Strauss III, J.F. Oxysterol regulation of steroidogenic acute regulatory protein (StAR) gene expression: Structural specificity, transcriptional and post-transcriptional actions. *Journal of Biological Chemistry* **273**: 30729, 1998.
185. Kallen, C.B., Billheimer, J.T., Summers, S.A., Stayrook, S., Lewis M., Strauss III, J.F. Steroidogenic acute regulatory protein (StAR) is a sterol transfer protein. *Journal of Biological Chemistry* **273**: 16339, 1998.
186. Legro, R.S. Driscoll, D., Strauss III, J.F., Fox, J., Dunaif, A. Evidence for a genetic basis for hyperandrogenemia in the polycystic ovary syndrome. *Proceedings of the National Academy of Sciences* **95**: 14956-14960, 1998.
187. Roberts, A.K., Monzon-Bordonaba, F., Van Deerlin, P.G., Holder, J., Macones, G.A., Morgan, M.A., Strauss III, J.F., Parry, S. Association of polymorphism within the promoter of the tumor necrosis factor α gene with increased risk of preterm premature rupture of the fetal membranes. *American Journal of Obstetrics and Gynecology* **180**: 1297, 1999.
188. Watari, H., Blanchette-Mackie, E.J., Dwyer, N.K., Glick, J.M., Patel, S., Neufeld, E.B., Brady, R.O., Pentchev, P.G., Strauss III, J.F. Niemann-Pick C1 protein: Obligatory roles for N-terminal domains and lysosomal targeting in cholesterol mobilization. *Proceedings of the National Academy of Sciences* **96**: 805, 1999.
189. Suresh, S., Cooney, A.M., Dwyer, N.K., Roff, C.F., Ohno, K., Morris, J.A., Carstea, E.D., Incardona, J.P., Strauss, III, J.F., Vanioer, M.T., Pentchev, P.G., Blanchette-Mackie, E.J. The Niemann-Pick C1 protein resides in a novel organelle linked to retrograde transport of multiple lysosomal cargo. *Journal of Biological Chemistry* **274**: 9627, 1999.
190. Watari, H., Blanchette-Mackie, E.J., Dwyer, N.K., Watari, M., Neufeld, E.B., Patel S., Pentchev, P.G., Strauss III, J.F. Mutations in the leucine zipper motif and sterol-sensing domain inactivate the Niemann-Pick C1 glycoprotein. *Journal of Biological Chemistry* **274**: 21861, 1999.
191. Watari, M., Watari, H., DiSanto, M.E., Chacko, S., Shi, G.-P., Strauss III, J.F. Pro-inflammatory cytokines induce expression of matrix-metabolizing enzymes in human cervical smooth muscle cells. *American Journal of Pathology* **154**: 1755, 1999.
192. Nelson, V.L., Legro, R.S., Strauss III, J.F., McAllister, J.M. Augmented androgen production is a stable steroidogenic phenotype of propagated theca cells from polycystic ovaries. *Molecular Endocrinology* **13**: 946, 1999.
193. Urbanek, M., Legro, R.S., Driscoll, D.A., Azziz, R., Ehrmann, D.A., Norman, R.J., Strauss III, J.F., Spielman, R.S., Dunaif, A. Thirty-seven candidate genes for polycystic ovary syndrome: Strongest evidence for linkage is with follistatin. *Proceedings of the National Academy of Sciences U.S.A.* **96**: 8573-8578, 1999.
194. Christenson, L.K., Johnson, P.F., McAllister, J.M., Strauss III, J.F. CCAAT/enhancer-binding proteins regulate expression of the human steroidogenic acute regulatory protein (StAR) gene. *Journal of Biological Chemistry* **274**: 26591, 1999.
195. Devoto, L., Christenson, L.K., McAllister, J.M., Makrigiannakis, A., Strauss III, J.F. Insulin and insulin-like growth factor-I and -II modulate human granulosa-lutein cell steroidogenesis: enhancement of steroidogenic acute regulatory protein (StAR) expression. *Molecular Human Reproduction* **5**: 1003, 1999.
196. Neilson, L.I., Schneider, P.A., Van Deerlin, P.G., Kiriakidou, M., Driscoll, D.A., Pellegrini, M.C., Millinder, S., Yamamoto, K.K., French, C.K., Strauss III, J.F. cDNA cloning and characterization of a human sperm antigen (SPAG6) with homology to the product of the *Chlamydomonas* PF16 locus. *Genomics* **60**: 272, 1999.
197. Sapiro, R., Tarantino, L.M., Velazquez, F., Kiriakidou, M., Hecht, N.B., Bucan, M., Strauss III, J.F. Sperm antigen 6 (Spag6) is the murine homologue of the *Chlamydomonas reinhardtii* central apparatus protein encoded by the PF16 locus. *Biology of Reproduction* **62**: 511, 2000.
198. Ishov, A.M., Sotnikov, A.G., Negorev, D., Vladimirova, O.V., Neff, N., Kamitani, T., Yeh, E.T.H., Strauss, III, J.F., Maul, G.G. PML is critical for ND10 formation and recruits the PML interacting protein Daxx to this nuclear structure when modified by SUMO-1. *Journal of Cell Biology* **147**: 221, 1999.

199. Rocca, B., Loeb, A.L., Strauss III, J.F., Vezza, R., Habib, A., Li, H., FitzGerald, G.A. Directed vascular expression of the thromboxane A2 receptor results in intrauterine fetal growth retardation. *Nature Medicine* **6** : 219, 2000.
200. Watari, H., Blanchette-Mackie, E.J., Dwyer, N.K., Sun, G., Glick, J.M., Patel, S., Neufeld, E.B., Pentchev, P.G., Strauss, III, J.F. NPC1-containing compartment of human granulosa-lutein cells: A role in the intracellular trafficking of cholesterol supporting steroidogenesis. *Experimental Cell Research* **255**: 56, 2000.
201. Watari, M., Watari, H., Nachamkin, I., Strauss, III, J.F. Lipopolysaccharide induces expression of genes encoding pro-inflammatory cytokines and the elastin-degrading enzyme, Cathepsin S, in human cervical smooth-muscle cells. *Journal of the Society for Gynecologic Investigation* **7**: 190, 2000
202. Wickenheisser, J.K., Quinn, P.G., Nelson, V.L., Legro, R.S., Strauss, III, J.F., McAllister, J.M. Differential activity of the cytochrome P450 17 α -hydroxylase and steroidogenic acute regulatory protein gene promoters in normal and polycystic ovary syndrome theca cells. *Journal of Clinical Endocrinology and Metabolism* **85**: 2304, 2000.
203. Neilson, L., Andalibi, A., Kang, D., Coutifaris, C., Strauss III, J.F., Stanton, J.L., Green, D.P.L. Molecular phenotype of the human oocyte by PCR-SAGE. *Gemonics* **63**: 13, 2000.
204. Watari, H., Blanchette-Mackie, E.J., Dwyer, N.K., Watari, M., Burd, C.G., Patel, S., Pentchev, P.G., Strauss, III, J.F. Determinants of NPC1 expression and action: Key promoter regions, posttranscriptional control, and the importance of a "cysteine-rich" loop. *Experimental Cell Research* **259**: 247-256, 2000.
205. Gwinner, V.M., Strauss III, J.F., Miliken, N., Donoghue, G.D. Implementing a new model of integrated women's health in academic health centers: Lessons learned from the national Centers of Excellence in Women's Health. *Journal of Women's Health and Gender Based Medicine* **9**: 979-985, 2000.
206. Espinosa-Garcia, M.T., Strauss, III, J.F., Martinez, F. A trypsin-sensitive protein is required for utilization of exogenous cholesterol for pregnenolone synthesis by placental mitochondria. *Placenta*, **21**: 654-660, 2000.
207. Koi H, Zhang J, Makrigiannakis A, Getsios S, MacCalman CD, Kopf GS, Strauss III JF, Parry S. Differential expression of the coxsackievirus and adenovirus receptor regulates adenovirus infection of the placenta. *Biol Reprod* **64**: 1001-1009, 2001.
208. Urbanek, M., Wu, Xinqi, Vickery, K.R., Kao, L.-C., Christenson, L.K., Schneyer, A., Legro, R.S., Driscoll, D.A., Strauss, III, J.F., Dunaif, A., Spielman, R.S. Allelic variants of the follistatin gene in polycystic ovary syndrome. *Journal of Clinical Endocrinology and Metabolism* **85**: 4455-4461, 2000.
209. Christenson, L.K., Osborne, T.F., McAllister, J.M., Strauss, III, J.F. Conditional response of the human steroidogenic acute regulatory protein gene promoter to sterol regulatory element binding protein 1a, *Endocrinology* **142**: 28-36, 2001.
210. Zhang, M., Dwyer, N.K., Neufeld, E.B., Love, D.C., Cooney, A., Comly, M., Patel, S., Watari, H., Strauss III, J.F., Pentchev, P.G., Hanover, J.A., Blanchette-Mackie, E.J. Sterol-modulated glycolipid sorting occurs in Niemann-Pick C1 late endosomes. *Journal of Biological Chemistry* **276**: 3417-3425, 2001.
211. Okamura, Y., Watari, M., Jerud, E.S., Young, D.W., Ishizaka, S.T., Rose, J., Chow, J.C., Strauss III, J.F. The EDA domain of fibronectin activates Toll-like receptor 4. *Journal of Biological Chemistry* **276**: 10229-10233, 2001.
212. Tajima, K., Babich, S., Yoshida, Y., Dantes, A., Strauss III, J.F., Amsterdam, A. Stimulation of steroidogenesis and attenuation of StAR degradation by a proteasome inhibitor, MG132. *FEBS Lett.* **490**: 59, 2001.
213. Seger, R., Hanoch, T., Rosenberg, R., Dantes, A., Merz, W.E., Strauss III, J.F., Amsterdam, A. The ERK signaling cascade inhibits gonadotropin-stimulated steroidogenesis. *Journal of Biological Chemistry* **276**: 13957-13964, 2001.
214. Devoto, L., Kohen, P., Gonzalez, R.R., Castro, O., Retamales, I., Vega, M., Carvallo, P., Christenson, L.K., Strauss III, J.F. Changes in the expression of the steroidogenic acute regulatory protein (StAR) in the human corpus luteum throughout the luteal phase. *Journal of Clinical Endocrinology and Metabolism* **86**: 5633-5639, 2001.
215. Nelson, V.L., Quin, K-N., Rosenfield, R.L., Wood, J.R., Penning, T.M., Legro, R.S., Strauss III, J.F., McAllister, J.M. The biochemical basis for increased testosterone production in polycystic ovary syndrome (PCOS) theca cells. *Journal of Clinical Endocrinology and Metabolism* **86**: 5925-5933, 2001.

216. Angus, S.R., Segel, S.Y., Hsu, C.-D., Locksmith, G.J., Clark, P., Sammel, M.D., Macones, G.A., Strauss III, J.F., Parry, S. Amniotic fluid matrix metalloproteinase-8 indicates intra-amniotic infection. *American Journal of Obstetrics and Gynecology* **185**: 1232-1238, 2001.
217. Petrescu, A.D., Gallegos, A.M., Okamura, Y., Strauss III, J.F., Schroeder, F. Steroidogenic acute regulatory protein binds cholesterol and modulates mitochondrial membrane sterol domain dynamics. *Journal of Biological Chemistry* **276**: 36970-36982, 2001.
218. Christenson, L., Stouffer, R.L., Strauss, III, J.F. Quantitative analysis of the hormone-induced hyperacetylation of histone 3 associated with the steroidogenic acute regulatory protein (StAR) gene promoter. *Journal of Biological Chemistry* **276**: 27392-27399, 2001.
219. Fujimoto, T., Savani, R., Watari, M., Day, A.J., Strauss III, J.F. Induction of the hyaluronic acid-binding protein TSG-6 in cervical smooth muscle cells by tumor necrosis factor α and prostaglandin E₂. *American Journal of Pathology*, **160**: 1495-1502, 2002.
220. Fujimoto, T., Parry, S., Urbanek, M., Sammel, M., Macones, G., Kuivaniemi, H., Romero, R., Strauss III, J.F. A single nucleotide polymorphism in the matrix metalloproteinase-1 (MMP-1) promoter influences amnion cell MMP-1 expression and risk for preterm premature rupture of the fetal membranes. *Journal of Biological Chemistry* **277**: 6296-6302, 2002.
221. Ferrand, P.E., Parry, S., Sammel, M., Macones, G.A., Kuivaniemi, H., Romero, R., Strauss III, J.F. A polymorphism in the matrix metalloproteinase-9 promoter is associated with increased risk of preterm premature rupture of membranes in African Americans. *Molecular Human Reproduction* **8**: 494-501, 2002.
222. Yamamoto, N., Christenson, L.K., McAllister, J.M., Strauss III, J.F. Growth differential factor-9 inhibits 3'5'-Adenosine monophosphate-stimulated steroidogenesis in human granulosa and theca cells. *Journal of Clinical Endocrinology and Metabolism* **87**: 2849-2856, 2002.
223. Koi, H., Makrigiannakis, A., Gwtsios, S., Zhang, J., MacCalman, C.D., Strauss III, J.F., Parry, S. The syncytiotrophoblast is a barrier to maternofetal transmission of herpes simplex virus. *Biology of Reproduction* **67**: 1572-1579, 2002.
224. Sapiro, R., Kostetskii, I., Olds-Clarke, P., Gerton, G.L., Radice, G.L., Strauss III, J.F. Male infertility, impaired sperm motility, and hydrocephalus in mice deficient in sperm-associated antigen 6. *Molecular and Cellular Biology* **22**: 6298-6305.
225. Zhang, M., Liu, P., Christenson, L.K., Fujimoto, T., Martinez, F., Comly, M., Hanover, J.A., Blanchette-Mackie, E.J., Strauss III, J.F. MLN64 mediates mobilization of lysosomal cholesterol to steroidogenic mitochondria. *Journal of Biological Chemistry* **277**: 33300-33310, 2002.
226. Ferrand, P.E., Fujimoto, T., Chennathukuzhi, V., Parry, S., Macones, G.A., Sammel, M., Kuivaniemi, H., Romero, R., Strauss III, J.F. The *CARD15* 2936insC mutation and *TLR4* 896 A>G polymorphism in African Americans risk of preterm premature rupture of membranes (PPROM). *Molecular Human Reproduction* **8**: 494-501, 2002.
227. Zang, Z., Sapiro, R., Kapfhamer, D., Bucan, M., Bray, J., Chennathukuzhi, V., McNamara, P., Curtis, A., Zhang, M., Blanchette-Mackie, E.J., Strauss III, J.F. A Sperm-Associated WD Repeat Protein Orthologous to *Chlamydomonas* PF20 Associates With Spag6, the Mammalian Orthologue of *Chlamydomonas* PF16 , *Molecular and Cellular Biology* **22**: 7993-8004, 2002.
228. Jabara, S., Christenson, L.K., Wang, C.Y., McAllister, J.M., Javitt, N.B., Dunaif, A., Strauss III, J.F. Stromal cells of the human postmenopausal ovary display a distinctive biochemical and molecular phenotype. *Journal of Clinical Endocrinology and Metabolism* **88**: 484-492, 2003.
229. Watari, M., Watari, H., Fujimoto, T., Yamada, H., Nishihira, J., Strauss III, J.F., Fujimoto, S. Lipopolysaccharide induces interleukin-8 production by human cervical smooth muscle cells. *Journal of the Society for Gynecologic Investigation* **10**: 110-117, 2003.
230. Urbanek, M., Du, Y., Silander, K., Collins, F.S., Legro, R.S., Strauss, III, Dunaif, A., Spielman, R.S. Variation in resistin gene promoter not associated with polycystic ovary syndrome. *Diabetes* **52**: 214-217, 2003.
231. Wiegand, V., Chang, T.-Y., Strauss, III, J.F., Fahrenholz, F., Gimpl, G. Transport of plasma membrane-derived cholesterol and the function of Niemann-Pick C1 protein. *The FASEB Journal* **17**: 782-784 , 2003.
232. Uribe, A., Strauss, III, J.F., Martinez, F. Contact sites from human placental mitochondria. Characterization and role in progesterone synthesis. *Archives of Biochemistry and Biophysics* **413**: 171-181, 2003.

233. Kohen, P., Castro, O., Palomino, A., Munoz, A., Christenson, L.K., Sierralta, W., Carvallo, P., Strauss, III, J.F., Devoto, L. Steroidogenic Response and Expression of the Steroidogenic Acute Regulatory Protein Following hCG Administration at Different Stages in the Human Luteal Phase. *Journal of Clinical Endocrinology and Metabolism* **88**: 3421-3430, 2003.
234. Wood, J.R., Nelson, V.L., Ho, C., Jansen, E., Wang, C.Y., Urbanek, M., McAllister, J.M., Mosselman, S., Strauss III, J.F. The molecular phenotype of polycystic ovary syndrome (PCOS) theca cells and new candidate PCOS genes defined by microarray analysis. *Journal of Biological Chemistry* **278**:26380-90, 2003.
235. Hubner, K., Fuhrmann, G., Christenson, L.K., Kehler, J., Reinbold, R., De La Fuente, R., Wood, J., Strauss III, J.F., Boiani, M., Scholer, H.R. Derivation of oocytes from mouse embryonic stem cells. *Science* **300**: 1251-1256, 2003.
236. Hernandez-Guerro, C., Monzon-Bordonaba, F., Jimenez-Zamudio, L., Ahued-Ahued, R., Arechavaleta-Velasco, F., Strauss III, J.F., Vadillo-Ortega, F. In-vitro secretion of proinflammatory cytokines by human amniochorion carrying hyper-responsive gene polymorphisms of tumor necrosis factor- α and interleukin-1 β . *Molecular Human Reproduction* **9**:625-9, 2003.
237. O'Brien, P.J., Koi, H., Parry, S., Brass, Strauss III, J.F. L.F., Wang, L.-P., Tomaszewski, J.E., Christenson, L.K. Thrombin receptors and proteinase-activated receptor-2 in human placentation. Receptor activation mediates extravillous trophoblast invasion. *American Journal of Pathology* **163**: 1245-1254.
238. Hiroi H, Christenson LK, Chang L, Sammel MD, Berger SL, Strauss JF 3rd Temporal and spatial changes in transcript (StAR) locus associated with StAR transcription. *Mol Endocrinol.* **18**:791-806, 2004
239. Nelson-DeGrave VL, Wickenheisser JK, Cockrell JE, Wood JR, Legro RS, Strauss JF 3rd, McAllister JM. Valproate potentiates androgen biosynthesis in human ovarian theca cells. *Endocrinology.* **145** :799-808., 2004.
240. Kishida T, Kostetskii I, Zhang Z, Martinez F, Liu P, Walkley SU, Dwyer NK, Blanchette-Mackie EJ, Radice GL, Strauss JF 3rd. Targeted mutation of the MLN64 START domain causes only modest alterations in cellular sterol metabolism. *Journal of Biological Chemistry* **279**:19276-85, 2004.
241. Ho CK, Strauss JF 3rd. Activation of the control reporter plasmids pRL-TK and pRL-SV40 by multiple GATA transcription factors can lead to aberrant normalization of transfection efficiency. *BMC Biotechnol.* **30**:1-10, 2004.
242. Leite, R., Brown, A.G., Strauss III, J.F. Tumor necrosis factor- α suppresses the expression of steroid receptor coactivator-1 and -2: A possible mechanism contributing to changes in steroid hormone responsiveness FASEB J. published Jul 1, 2004, doi:10.1096/fj.04-1684fje.
243. Macones, G.A., Parry, S., Elkousy M, Clothier B., Ural, S.H., Strauss III, J.F. A polymorphism in the promoter region of TNF and bacterial vaginosis: Preliminary evidence of gene-environment interaction in the etiology of preterm birth. *Am J. Obstet Gynecol* **190**: 1504-8, 2004.
244. Zhang, Z., Kostetskii, I, Moss, S.B., Jones, B., Ho, C., Wang, H., Kishida, T., Gerton, G.L., Radice, G.L., Strauss III, J.F. Haploinsufficiency for the Murine Orthologue of Chlamydomonas PF20 Disrupts Spermatogenesis. *Proceedings of the National Academy of Sciences, U.S.A.*, **101**: 12946-5, 2004
245. Wang H, Parry S, Macones G, Sammel MD, Ferrand PE, Kuivaniemi H, Tromp G, Halder I, Shriver MD, Romero R, Strauss JF 3rd. Functionally significant SNP MMP8 promoter haplotypes and preterm premature rupture of membranes (PPROM). *Hum Mol Genet.* **13**:2659-69, 2004
246. Saner KJ, Suzuki T, Sasano H, Pizzey J, Ho C, Strauss JF 3rd, Carr BR, Rainey WE. Steroid sulfotransferase (SULT2A1) gene transcription is regulated by steroidogenic factor 1 (SF1) and GATA-6 in the human adrenal. *Mol Endocrinol.* **19**: 184-197, 2005.
247. Nelson-Degrave VL, Wickenheisser JK, Hendricks KL, Asano T, Fujishiro M, Legro RS, Kimball SR, Strauss JF 3rd, McAllister JM. Alterations in MEK and ERK Signaling in Theca Cells Contribute to Excessive Androgen Production in Polycystic Ovary Syndrome (PCOS). *Mol Endocrinol.* **20**:379-90, 2005 .
248. 249. Wood JR, Nelson-Degrave VL, Jansen E, McAllister JM, Mosselman S, Strauss III JF. Valproate-induced alterations in human theca cell gene expression: Clues to the association between valproate use and metabolic side effects. *Physiological Genomics* **20**: 233-243, 2005.
249. Wickenheisser JK, Nelson-Degrave VL, Hendricks KL, Legro RS, Strauss JF 3rd, McAllister JM. Retinoids and Retinol Differentially Regulate Steroid Biosynthesis in Ovarian Theca Cells Isolated from Normal Cycling Women and Women with Polycystic Ovary Syndrome. *J Clin Endocrinol Metab.* 2005 May 24; [Epub ahead of print] PMID: 15914525 [PubMed - as supplied by publisher]

250. Horowitz E, Zhang Z, Jones BH, Moss SB, Ho C, Wood JR, Wang X, Sammel MD, Strauss JF 3rd. Patterns of expression of sperm flagellar genes: early expression of genes encoding axonemal proteins during the spermatogenic cycle and shared features of promoters of genes encoding central apparatus proteins. *Mol Hum Reprod*. 11:307-17, 2005.
251. Zhang Z, Jones BH, Tang W, Moss SB, Wei Z, Ho C, Pollack M, Horowitz E, Bennett J, Baker ME, Strauss JF 3rd. Dissecting the axoneme interactome: The mammalian orthologue of chlamydomonas PF6 interacts with SPAG6, the mammalian orthologue of chlamydomonas PF16. *Mol Cell Proteomics*. 2005 Apr 12; [Epub ahead of print]
252. Sierralta WD, Kohen P, Castro O, Munoz A, Strauss JF 3rd, Devoto L. Ultrastructural and biochemical evidence for the presence of mature steroidogenic acute regulatory protein (StAR) in the cytoplasm of human luteal cells. *Mol Cell Endocrinol*. 2005 Oct 20;242(1-2):103-10.
253. Ho CK, Wood JR, Stewart DR, Ewens K, Ankener W, Wickenheisser J, Nelson-Degrave V, Zhang Z, Legro RS, Dunaif A, McAllister JM, Spielman R, Strauss JF 3rd. Increased Transcription and Increased mRNA Stability Contribute to Increased GATA6 mRNA Abundance in PCOS Theca Cells. *J Clin Endocrinol Metab*. 2005 Sep 13; [Epub ahead of print]
254. Urbanek M, Woodroffe A, Ewens KG, Diamanti-Kandarakis E, Legro RS, Strauss JF 3rd, Dunaif A, Spielman RS. Candidate Gene Region for Polycystic Ovary Syndrome (PCOS) on Chromosome 19p13.2. *J Clin Endocrinol Metab*. 2005 90: 6623-9.
255. Stewart DR, Dombroski BA, Urbanek M, Ankener W, Ewens KG, Wood JR, Legro RS, Strauss JF 3rd, Dunaif A, Spielman RS. Fine mapping of genetic susceptibility to polycystic ovary syndrome on chromosome 19p13.2 and tests for regulatory activity. *J Clin Endocrinol Metab*. 2006 Oct;91(10):4112-7..
256. Zhang ZB, Kostetskii I, Tang W, Haig-Ladewig L, Sapiro R, Wei Z, Patel AM, Bennett J, Gerton GL, Moss SB, Radice GL, Strauss III JF Deficiency of SPAG16L causes male infertility associated with impaired sperm motility. *Biology of Reproduction* 74: 751-759, 2006.
257. Brown AG, Leite RS, Engler AJ, Discher DE, Strauss JF 3rd. A hemoglobin fragment found in cervicovaginal fluid from women in labor potentiates the action of agents that promote contraction of smooth muscle cells. *Peptides*. 2006 2006 Jul;27(7):1794-800.
258. Freeman EW, Gracia CR, Sammel MD, Lin H, Lim LC, Strauss JF 3rd. Association of anti-mullerian hormone levels with obesity in late reproductive-age women. *Fertil Steril*. 87(1):101-6, 2007.
259. Wang H, Parry S, Macones G, Sammel MD, Kuivaniemi H, Tromp G, Argyropoulos G, Halder I, Shriver MD, Romero R, Strauss JF 3rd. A functional SNP in the promoter of the SERPINH1 gene increases risk of preterm premature rupture of membranes in African Americans. *Proc Natl Acad Sci U S A*. 2006 Sep 5;103(36):13463-7.
260. Wood JR, Dumesic DA, Abbott DH, Strauss JF 3rd. Molecular Abnormalities in Oocytes from Women with Polycystic Ovary Syndrome Revealed by Microarray Analysis. *J Clin Endocrinol Metab*. 92: 705-13, 2007.
261. Zhang, Z, Tang, W, Zhou R, Wei Z, Patel A.M., Povlishock, J.T., Bennett, J., Strauss III, J.F. Accelerated Mortality from Hydrocephalus and Pneumonia in Mice with a Combined Deficiency of SPAG6 and SPAG16L Reveals a Functional Interrelationship between the Two Central Apparatus Proteins, Cell Motility & Cytoskeleton 64: 360-76, 2007.
262. Zhang Z, Zariwala MA, Mahadevan MM, Caballero-Campo P, Shen X, Escudier E, Duriez B, Bridoux AM, Leigh M, Gerton GL, Kennedy M, Amselem S, Knowles MR, Strauss JF 3rd. A heterozygous mutation disrupting the SPAG16 gene results in biochemical instability of central apparatus components of the human sperm axoneme. *Biol Reprod*. 77(5):864-71, 2007.
263. Del Canto F, Sierralta W, Kohen P, Muñoz A, Strauss JF 3rd, Devoto L. Features of natural and gonadotropin-releasing hormone antagonist-induced corpus luteum regression and effects of in vivo human chorionic gonadotropin. *J Clin Endocrinol Metab* 92(11):4436-43, 2007.
264. Wang H, Sammel MD, Tromp G, Gotsch F, Halder I, Shriver MD, Romero R, Strauss JF 3rd. A 12-bp deletion in the 5'-flanking region of the SERPINH1 gene affects promoter activity and protects against preterm premature rupture of membranes in African Americans. *Hum Mutat*. 2008 Feb;29(2):332.
265. Wang H, Ogawa M, Wood JR, Bartolomei MS, Sammel MD, Kusanovic JP, Walsh SW, Romero R, Strauss JF 3rd. Genetic and epigenetic mechanisms combine to control MMP1 expression and its association with preterm premature rupture of membranes. *Hum Mol Genet*. 2008 Apr 15;17(8):1087-96.

266. Reitz J, Gehrig-Burger K, Strauss JF 3rd, Gimpl G. Cholesterol interaction with the related steroidogenic acute regulatory lipid-transfer (START) domains of StAR (STARD1) and MLN64 (STARD3). *FEBS J.* 2008 Apr;275(8):1790-802.
267. Silva C, Wood JR, Salvador L, Zhang Z, Kostetskii I, Williams CJ, Strauss JF 3rd.
Expression profile of male germ cell-associated genes in mouse embryonic stem cell cultures treated with all-trans retinoic acid and testosterone. *Mol Reprod Dev.* 2008 Apr 18. [Epub ahead of print]
268. Xu B, Hao Z, Jha KN, Zhang Z, Urekar C, Digilio L, Pulido S, Strauss JF 3rd, Flickinger CJ, Herr JC.
Targeted deletion of Tssk1 and 2 causes male infertility due to haploinsufficiency. *Dev Biol.* 2008 Apr 23. [Epub ahead of print].
269. Xu B, Hao Z, Jha KN, Zhang Z, Urekar C, Digilio L, Pulido S, Strauss JF 3rd, Flickinger CJ, Herr JC.
TSKS concentrates in spermatid centrioles during flagellogenesis. *Dev Biol.* 2008 Apr 11. [Epub ahead of print]
270. Kanasaki K, Palmsten K, Sugimoto H, Ahmad S, Hamano Y, Xie L, Parry S, Augustin HG, Gattone VH, Folkman J, Strauss JF, Kalluri R. Deficiency in catechol-O-methyltransferase and 2-methoxyoestradiol is associated with pre-eclampsia. *Nature.* 2008 May 11. [Epub ahead of print]
271. Zhang Z, Shen X, Jones BH, Xu B, Herr JC, Strauss JF 3rd. Phosphorylation of Mouse Sperm Axoneme Central Apparatus Protein SPAG16L by a Testis-Specific Kinase, TSSK2. *Biol Reprod.* 2008 Mar 26. [Epub ahead of print]

Correspondence (published notes)

1. Addonizio, V.P., Wetstein, L., Fisher, C.A., Feldman, P., Strauss, J.F., Harken, A.H.: Coronary thrombosis is mediated by platelet activation and not coagulation. *Surgical Forum* **303**: 302, 1982.
2. Macchione, G.J., Cembrowski, G.S., McIntire, T.D., Knee, G.R., Strauss, J.F. III, Jacobson, S. Emergency urinary hCG testing with Tandem Icon. *Clinical Chemistry* **31**: 1405, 1985.
3. Cembrowski, G.S., Macchione, G.J., McIntire, T.D., Knee, G.R., Strauss, J.F. III, Jacobson, Evaluation of Tandem Icon for Serum hCG. *Clinical Chemistry* **32**: 575, 1986.
4. Nass S.J., Strauss J.F. 3rd. Research on contraceptives. *Science* **303**:1769-71, 2004.

Technical Bulletins

1. Strauss, III, J.F. Knee, G.R., Benner, G.M.: Performance of qualitative radioimmunoassays for hCG: reference levels and indeterminate ranges. Corning Medical Technical Publications, 1984.
2. Castlebaum, A., Tureck, R, Strauss, III, J.F.: Use of FSH for controlled ovarian hyperstimulation (COH) in older infertile ovulatory patients. *Clinical Perspectives in Reproductive Endocrinology*, Serono.
3. Endocrine, Metabolic and reproductive Issues in Neurology and Psychiatry, the Endocrine Society, 2004.
4. Rotterdam ESHRE/ASRM-Sponsored PCOS Consensus Workshop Group. Revised 2003 consensus on diagnostic criteria and long-term health risks related to polycystic ovary syndrome. *Fertil Steril.* **81**:19-25, 2004.

Conference Summaries/Editorials

1. Millan. J.L. and Strauss, III, J.F. Molecular biology of the placenta – A workshop report, *Trophoblast Research*, **5**, 119, 1991.
2. Strauss, III, J.F. Obstetrics and gynecology in the post-genome era, *References en Gynécologie Obstétrique*, **6**:337-339.
3. Strauss, III, J.F. Manuscript submissions to the journal: American sterility, foreign fertility? *Fertility and Sterility* **77**:871-872, 2002.
4. Thadani, P.V., Strauss III, J.F., Dey, S.K., Anderson, V.M., Audus, K.L., Coats, K.S., Cross, J.C., Erlebacher, A., Ganapathy, V., Linzer, D.I., Miller, R.K., Novak, D.A., Rapaka, R.S., Sadovsky, Y., Salafia C.M., Soares, M., Unadkat, J. NIDA conference report on placental proteins, drug transport and fetal development. *American Journal of Obstetrics and Gynecology* **191**:1858-62 . 2004.
5. Strauss JF 3rd, Kafrissen . Waiting for the second coming. *Nature* **432**: 43-5, 2004 .
6. Strauss JF 3rd, Mastroianni L Jr. In memoriam: Celso-Ramon Garcia, M.D. (1922-2004), reproductive medicine visionary. *J Exp Clin Assist Reprod.* **2(1)**:2, 2005
7. Strauss JF 3rd. NIH funding reform. *Science.* 2005 Aug 5;309(5736):851.

8. Strauss JF 3rd, Chaudhuri G. The accelerated pace of pharma abandonment of research and development in family planning and fertility: will reproductive health technology be frozen in time? *Fertil Steril*. 2007 Jan 12; [Epub ahead of print]

Contributions to Monographs and Symposium Proceedings

1. Strauss, J.F. III, Flickinger, G.L.: A role for lysosomes in corpus luteum function. Protein turnover and lysosome function. Protein turnover and lysosome function (H.L. Segel and D. Doyle, eds.), Academic Press, **978**, p. 521-541.
2. Toaff, M.E., Flickinger, G.L., Strauss, J.F. III, Shattil, S.J.: Relationships between cholesterol supply and luteal mitochondrial steroid synthesis, in Workshop on Ovarian/Follicular and Corpus Luteum Function (C.P. Channing, J. Marsh and W. Sadler, eds.), Plenum Press, New York, p. 541, 1979.
3. Coburn, R.F., Cunningham, M., Diegel, J., Strauss, J.F. III. The plasma membrane sodium pump, PGE2 release and acidic phospholipid turnover in the guinea pig taenia coli. *Advances in Prostaglandin and Thromboxane Research* **8**: 1259, 1980.
4. Strauss, J.F. III, Tanaka, T., MacGregor, L., Tureck, R.W.: Control of cholesterol acquisition and utilization in the corpus luteum. Intra-ovarian Control Mechanisms (S. Segal and C.P. Channing, eds.), p. 303, 1982.
5. Veldhuis, J.D., Klase, P.A., Strauss, J.F. III, Hammond, J.M. Mechanism subserving estrogens amplification of its action: studies with swine granulosa cells in vitro. *Proceedings of the 4th ovarian workshop*, Raven Press, p. 323, 1983.
6. Tureck, R.W., Wilburn, A.B., Gwynne, J.J., Strauss, J.F. III. The role of lipoproteins in steroidogenesis by human luteinized granulosa cells in culture. *Journal of Steroid Biochemistry*, **16**: 525, 1983.
7. Strauss, J.F. III, Paavola, L.G., Rosenblum, M.F., Tanaka, T., Gwynne, J.T. Utilization of lipoprotein-carried cholesterol for steroidogenesis by rat luteal tissue in Target Cell Responsiveness (K.W. McKerns, ed.), Vol. 1, p. 361, Plenum Press, 1984.
8. Strauss, J.F. III, Paavola, L.G., Nestler, J.E., Soto, E.A., Silavin, S.L. Lipoprotein cholesterol uptake and metabolism in ovarian cells. In: *Proceeding of 6th Ovarian Workshop*, R.J. Ryan and D. Toft eds, Ovarian Workshops, Urbana, Ill. p. 1985.
9. Shemesh, M., Hansel, W., Strauss, J.F. III, Rafaeli, A., Lavi, S., Milequir, F. Control of rostanoid synthesis in bovine trophoblast and placentome. *Animal Reproduction Science* **7**: 177, 1984.
10. Silavin, S.L., Strauss, J.F. III. Comparison of the effects of cytochalasins B and D on steroid production by hamster ovarian cells. In: *Proceedings of the 6th Ovarian Workshop*, R.J. Ryan and D. Toft, eds, Ovarian Workshops, Urbana, Ill. p. 1985.
11. Veldhuis, J.D., Gwynne, J.T., Strauss, J.F. III, Kolp, L.A. Insulin action in the ovary: Modulation of cholesterol metabolism in cultured swine granulosa cells. In: *Lipoprotein and cholesterol metabolism in steroidogenic tissues*. J.F. Strauss III and K.M.J. Menon, eds., G.F. Stickley Co., Philadelphia, PA, p. 81, 1985.
12. Toaff, M.E., Strauss, J.F. III, Hall, P.F., Baranao, J.L.S., Hammond, J.M. Regulation of cytochrome P-450_{scc} synthesis in cultured porcine granulosa cells. In: *Lipoprotein and cholesterol metabolism in steroidogenic tissues*. J.F. Strauss III and K.M.J. Menon, eds, G.F. Stickley, Co., Philadelphia, PA, p. 247, 1985.
13. Soto, E.A., Tureck, R.W., Strauss, J.F. III: Human chorionic gonadotropin regulates metabolism of low density lipoproteins by human granulosa cells. In: *Lipoprotein and cholesterol metabolism in steroidogenic tissues*. J.F. Strauss III and K.M.J. Menon, eds., G.F. Stickley Co., Philadelphia, PA., p. 59, 1985.
14. Paavola, L.G., Strauss, J.F. III, Boyd, C.O., Nestler, J.E. Cellular uptake of high and low density lipoproteins by rat ovarian cells. In *lipoprotein and cholesterol metabolism in steroidogenic tissues*. J.F. Strauss III and K.M.J. Menon, ed., G.F. Stickley Co., Philadelphia, PA., p. 171, 1985.
15. Nestler, J.E., Bamberger, M.E., Rothblat, G.H., Strauss, J.F. III. Preferential utilization of the free cholesterol moiety of high density lipoproteins by cultured rat granulosa cells. In: *Lipoprotein and cholesterol metabolism in steroidogenic tissues*. J.F. Strauss III and K.M.J. Menon, eds., G.F. Stickley Co., Philadelphia, PA., p. 135, 1985.
16. Strauss, J.F. III, Golos, T.G. Ovarian lipoprotein metabolism: Importing cholesterol for steroidogenesis. *The Ovary Vol. 3*, Hokkaido Fertility Association, p. 32, 1987.

17. Golos, T.G., Strauss, J.F. III. Human chorionic gonadotropin (hCG) regulates low density lipoprotein receptor (LDL-R) expression in cultured human granulosa cells. ICSU Short Reports. Advances in gene technology: molecular biology of the endocrine system. ICSU-Press Cambridge University Press p. 222-223.
18. Golos, T.G., Strauss, J.F. III. Ovarian steroidogenesis: The mechanisms and regulation of lipoprotein metabolism in Ovarian Function (K. Ichinoe and S. Fujimoto, eds) Raven Press, 1988.
19. Laposata, E.A., Laboda, H.M., Glick, J.M., Strauss, J.F. III. Synthesis and secretion of hepatic lipase by rat hepatocytes in Cardiovascular Disease (L. Gallo, ed) Plenum Press p.51, 1987.
20. Golos, T.G., Strauss J.F. III, Miller W.L. Regulation of low density lipoprotein receptor and cytochrome P-450scs mRNA levels in human granulosa cells. Journal of Steroid Biochemistry **27**: 767, 1987.
21. Strauss, J.F. III, Golos, T.G., Silavin, S.L., Soto, E.A. Involvement of cyclic AMP in granulosa and luteal cell function: Regulation of steroidogenesis in Meiotic Inhibition: Molecular Control of Meiosis (F. Haseltine and N. First, eds) Plenum Press, p. 177, 1988.
22. Kliman, H.J., Feinman, M.A., Strauss, J.F. III. Differentiation of human cytotrophoblasts into syncytiotrophoblasts in culture. Trophoblast Research **2**:407, 1987.
23. Strauss, J.F. III, Takagi, K., Kao, L-C., Ringler, G.E. Understanding progesterone synthesis at the molecular level: New insights and possibilities for contraceptive development. Proceedings of the Sixth Annual Meeting of the Society for the Advancement of Contraception. Professional Postgraduate Services, Tokyo, Japan, p. 68, 1988.
24. Ringler, G.E., Ulloa-Aquirre, A., Kao, L-C, Nulsen, J.C., Kallen, C.B., Kliman, H.J., Strauss, J.F. III. Control of chorionic gonadotropin (hCG) by cyclic AMP: Lessons from primary cultures of cytotrophoblasts. Placental Protein Hormones, Elsevier, p. 183, 1988.
25. Tachi C., Strauss, J.F. III. Placental in Atlas of Endocrine Organs. Vertebrate and Invertebrate. Kodansha, Tokyo, Japan, 1987. (in Japanese).
26. Shemesh, M., Hansel, W., Strauss, J.F. III, Shore, L.S. Control of steroidogenesis in bovine placenta by Ca^{2+} second messenger and protein kinase C systems, side-chain cleavage enzyme and 3β -OH dehydrogenase are loci of their action. Journal of Reproduction and Fertility supplement **37**: 163, 1989.
27. Nulsen, J.C., Silavin, S.L., Kao, L-C., Ringler, G., Kliman, H.J., Strauss, J.F. III. Control of the steroidogenic machinery of the human trophoblast by cyclic AMP. Journal of Reproduction and Fertility, supplement **37**: 147, 1989.
28. Kliman, H.J., Coutifaris, C., Babalola, G.O., Soto, E.A., Kao, L-C., Queenan, J.T. Jr., Feinberg, R.F., Strauss, J.F. III. The human trophoblast: homotypic and heterotypic cell interactions. Development of preimplantation embryos and their environment. (K. Yoshinaga, ed) Alan R. Liss Inc., 1989.
29. Coutifaris, C., Strauss, J.F. III, Kliman, H.J. Towards a cellular and molecular understanding of implantation in the human: implications for assisted reproductive technologies. Institute of Medicine Monograph on Assisted Reproductive Technologies.
30. Shemesh, M., Hansel, W., Atilia, H.W., Strauss, J.F. III. Function of the bovine corpus luteum of pregnancy. Israel Journal of Veterinary Medicine **44**: 257, 1988.
31. Takagi, K., Strauss, J.F. III. Control of low density lipoprotein receptor gene expression in steroidogenic cells. Canadian Journal of Physiology and Pharmacology **67**:968, 1989.
32. Ringler, G.E., Kao, L-C., Ulloa-Aguirre, A., Strauss, J.F. III. Control of the endocrine function of the human placenta by cyclic AMP. in Blastocyst Implantation (K. Yoshinaga, ed.) Sero Symposium, Adams Press, p. 209, 1989.
33. Kliman, H.J., Coutifaris, C., Feinberg, R.F., Strauss, J.F. III, Haemowitz, J.E. Implantation: *in vitro* models using human tissues. in Blastocyst Implantation (K. Yoshinaga, ed.) Sero Symposium, Adams Press, p. 83, 1989.
34. Coutifaris, C., Ringler, G.E., Reed, K., Margioris, A.N., Chrousos, G.P., Strauss, J.F. III The placenta and stress: effects of adenylate cyclase activators and of glucocorticoids on the endocrine function of trophoblastic cells in culture. in Advances in Neuroendocrine Regulation of Reproduction. (S. Yen and W. Vale, eds). Sero Symposia p. 95, 1990.
35. Coutifaris, C., Babalola, G.O. Feinberg, R.F., Kao, L-C., Kliman, H.J., Strauss, J.F. III. Purified human cytotrophoblasts: surrogates for the blastocyst in *in vitro* models of implantation. Advances in assisted reproductive technologies (S. Mashlach et al., eds.) p. 687.
36. Babalola, G.O., Yamamoto, R., Kao, L-C., Coutifaris, C., Strauss, J.F., III. Morphogenesis of the human placenta: aggregation and fusion of cytotrophoblast cells. in Perspectives in primate reproductive

- biology. Wiley Eastern, p. 105, 1991.
37. Kao, L-C., McKnight, C.E., Babalola, G.O., Coutifaris, C., Strauss, J.F., III. Thoughts on the differentiation and function of human trophoblast. in *Reproduction, Growth and Development. Sero Symposium*.
 38. Strauss, J.F. III, Rennert, H., Yamamoto, R., Kao, L-C., Alvarez, J.G. Oxysterols: regulation of biosynthesis and role in controlling cellular cholesterol homeostasis in ovarian cells in *Regulatory processes and gene expression in the ovary* (G. Gibori, ed.) Sero Symposium, p. 137, 1991.
 39. Tremblay, Y., Marcotte, B., and Strauss, III, J.F. Differential regulation of 3β -HSD and 17β -HSD expression in granulosa cells In *Regulatory processes and gene expression in the ovary* (G. Gibori, ed.) Sero Symposium p. 261, 1991.
 40. Strauss, J.F., III, Rennert, H., Yamamoto, R., Kao, L-C., Alvarez, J.C. Oxysterol regulators of cellular cholesterol dynamics. In *The New Biology of Steroids* (F. Naftolin, R. Hochberg, eds.) Sero Symposium, p. 15, 1991.
 41. Kliman, H.J., Strauss, III, J.F., Kao, L-C., Caltabiano S., and Wu S. Cytoplasmic and biochemical differentiation of the human villous cytotrophoblast in the absence of syncytium formation. *Trophoblast Res.* Vol. 5, 297, 1991.
 42. Sehdev, H.M., Kao, L-C., Babalola, G.O., Chin, U., Song, J., Yamamoto, R., Strauss, III, J.F., and Coutifaris, C. Human trophoblast differentiation in Uterine and embryonic factors in early pregnancy. (J.F. Strauss and C.R. Lytle eds.) Plenum Press, 1991, pp. 251-260.
 43. Kao, L.-C., Babalola, G.O., Kopf, G.S., Coutifaris, C. and Strauss, J.F. III. Differentiation of human trophoblasts: 'Structure-function relationships in Molecular Aspects of reproduction. (eds. P.C.K. Leung, A.J.W. Hsuen, H.G. Friesen) Sero Symposium, pp.159.
 44. Strauss, J.F. III. Does estradiol act as a local regulator of follicular growth and development? Implications for the use of gonadotropins in ovulation induction and ovarian pathophysiology in *The role and uses of FSH in ovulation induction. Sero Symposia*, 1992.
 45. Strauss, J.F. III, Yamamoto, R., Rennert, H., Kallen C.B. and Billheimer, J.T. Cloning and Expression of Sterol Carrier Protein₂ (SCP₂): a Role for SCP₂ in Ovarian Steroidogenesis. *Recent Advances in Ovarian Function: Basic and Clinical Researches. Sero Symposia Review No. 28* (eds., S. Fujimoto, M. Mizuno and S.J. Segal) 1992, pp. 173-182.
 46. Gafvels, M.E., Coukos, G., Coutifaris, C., Strickland, D.K., Strauss, III, J.F. Regulation of trophoblast $\alpha 2$ -macroglobulin receptor/low density lipoprotein receptor-related protein: A multifunctional receptor possibly involved in trophoblast invasion and placental lipid transport. In *trophoblast cells.* (M. Soares, S. Handwerger and F. Talamantes, eds) Springer-Verlag New York, 1993, pp. 123-133.
 47. Strauss, III, J.F., Gafvels, M.E., Coukos, G., Coutifaris, C., Strickland, D.K. The low density lipoprotein receptor family of protein: potential roles in implantation and placentation. *Frontiers in Endocrinology: Perspectives on assisted reproduction.* (eds. T. Mori, T. Ano, T. Tominaga and M. Hiroi) Ares-Sero, 1994 pp. 339.
 48. Coukos, G., Gafvels, M.E., Wittmaack, F., Matsuo, H., Strickland, D.E., Coutifaris, C. and Strauss, III, J.F. Potential roles for the low density lipoprotein receptor family of proteins in implantation. In *The Endometrium* (C. Bulletti, E. Gurpide, eds) Ann. New York Acad Sci., 1994.
 49. Wittmaack, F., Matsuo, H., Strauss III, J.F. Nutrient control of trophoblast cell function. In *Molecular and Cellular Aspects of periimplantation Processes* (ed. S.K. Dey) Springer-Verlag, Chapter 21, 1995.
 50. Strauss III, J.F., and Steinkampf, M.P. Pituitary-ovarian interactions during follicular maturation and ovulation. *American Journal of Obstetrics and Gynecology* **172**:726, 1995.
 51. MacCalman, C.D., Omigbodun, A., Tien, X.C., Fortune, J.E., Furth, E.E., Coutifaris, C., Strauss, III, J.F. Novel cell adhesion molecules: roles in implantation? in *The Endometrium as a Target for Contraception* (H.M. Beier, ed.) Springer-Verlag, pp. 137-157, 1996.
 52. Sugawara, T., Kiriakidou, M., McAllister, J.M., Holt, J.A., Arakane, F., Strauuss III, J.F. Regulation of expression of the steroidogenic acuteregulatory protein (StAR) gene: a central role for steroidogenic factor 1. *Steroids* **62**: 5, 1997.
 53. Arakane, F., Sugawara, T., Kiriakidou, M., Kallen, C.B., Watari, H., Christenson, L.K., Strauss, III, J.F. Molecular insights into the regulation of steroidogenesis: from laboratory to clinic and back. *Human Reproduction* **12**: Suppl. 1, 46-50, 1997.
 54. Strauss, III, J.F. Applications of molecular genetics to reproductive medicine. *New Horizons in Reproductive Medicine. Proceedings of the IX World Congress in Human Reproduction*, Philadelphia, 1996. C. Coutifaris, L. Mastroianni, eds., Parthenon Press, 1997.

55. Parry, S., MacCalman, C.D., Strauss, III, J.F. Recombinant virus mediated gene transfer in trophoblast cells. *Annals of the New York Academy of Sciences*, in press, 1997.
56. Parry, S., Holder, J., Strauss, III, J.F. Mechanisms of trophoblast-virus interaction. *Journal of Reproductive Immunology* **37**: 25, 1998.
57. Lei, H., Delgado, V., Furth, E.E., Paavola, L.G., Vadillo-Ortega, F., Strauss, III, J.F. A program of cell death and extracellular matrix degradation in fetal membranes prior to labor. In *Cell Death in Reproductive Physiology*, J. Tilly, J.F. Strauss, III, M. Tenniswood, Sero Symposium, pp 74-79, 1997.
58. Legro, R., Spielman, R., Urbanek, M., Driscoll, D., Strauss, III, J.F., Dunaif, A. The genetics of polycystic ovary syndrome. *Recent Progress in Hormone Research* **53**: 217, 1998.
59. Kallen, C.B., Arakane, F., Christenson, L.K., Watari, H., Devoto, L., Strauss III, J.F. Unveiling the mechanism of action and regulation of the steroidogenic acute regulatory protein (StAR). *Molecular and Cellular Endocrinology* **145**: 39, 1998.
60. Miller, W.L., Strauss III, J.F. Molecular pathology and mechanism of action of the steroidogenic acute regulatory protein, StAR. *Journal of Steroid Biochemistry and Molecular Biology*, **69**: 131-141, 1999.
61. Arakane, F., Kallen, C.B., Watari, H., Staybrook, S.E., Lewis, M., Strauss III, J.F. Steroidogenic acute regulatory protein (StAR) acts on the outside of mitochondria to stimulate steroidogenesis. *Endocrine Research* **24**: 463, 1998.
62. Strauss III, J.F., Kallen, C.B., Christenson, L.K., Watari, H., Devoto, L., Arakane, F., Kiriakidou, M., Sugawara, T. The steroidogenic acute regulatory protein (StAR): A window into the complexities of intracellular cholesterol trafficking. *Recent Progress in Hormone Research* **54**: 369, 1999.
63. Parry S., Koi, H., Strauss III, J.F. Transplacental drug delivery: gene and virus delivery to the trophoblast. *Advanced Drug Delivery Reviews* **38**: 69, 1999.
64. Strauss III, J.F. Programmed cell death in the fetal membranes in *Reproductive Medicine: A millennium review* (E.M. Coutinho & P. Spinola, eds) Parthenon Press, 1999.
65. Strauss III, J.F. Unraveling the genetics of complex disorders of reproduction. In *Reproductive Medicine: A millennium review* (E.M. Coutinho & P. Spinola, eds) Parthenon Press, 1999.
66. Strauss III, J.F., Christenson, L.K., Devoto, L., Martinez, F. (2000) Providing progesterone for pregnancy: control of cholesterol flux to the side-chain cleavage system. *Journal of Reproduction and Fertility Supplement* **55**: 3-12, 2000.
67. Strauss III, J.F. "Ripening" of the fetal membranes and cervix in preparation for birth. *Journal of the Bellevue Obstetrical and Gynecological Society* **15**:36, 1999.
68. Watari, H., Watari, M., Strauss III, J.F. Structure-function studies on the product of the Niemann-Pick C1 gene, a key protein involved in intracellular sterol trafficking. In *Molecular Steroidogenesis, Proceedings of the Yamada Conference LII*. Universal Academy Press, Inc. Tokyo, Japan. M. Okamoto, Y. 69. Ishimura, H. Nawata eds., Universal Academy Press, Tokyo, Japan, p. 267, 2000.
69. Devoto, L, Vega, M, Kohen, P., Castro, A., Castro, O., Christenson, L.K., Carvallo, P, Strauss III, J.F. Endocrine and paracrine-autocrine regulation of the human corpus luteum during the mid-luteal phase. *Journal of Reproduction and Fertility Supplement* **55**, 13-20, 2000.
70. Urbanek, M., Legro, R.S., Driscoll, D., Strauss III, J.F., Dunaif, A., Spielman, R. Searching for the polycystic ovary syndrome genes. *Journal of Pediatric Endocrinology & Metabolism* **13**: 1311-1313, 2000.
71. Urbanek, M., Driscoll, D.A., Strauss III, J.F., Spielman, R.S., Wu, X., Dunaif, A., Legro, R.S. The genetics of polycystic ovarian syndrome: A model for the analysis of complex genetic diseases, in press, 2002
72. Strauss III, J.F., Dunaif, A., McAllister, J.M., Spielman, R.S. The genetics of polycystic ovary syndrome in *Reproductive Medicine in the Twenty-First Century* (D.L. Healy, G.T. Kovacs, R. McLachlan, O. Rodriguez-Armas, eds), Parthenon Press, London pp.415-421.
73. Strauss III, J.F., Watari, M., Fujimoto, T., Okamura, Y., Ferrand, P. Molecular and genetic mechanisms underlying fetal membrane rupture and cervical ripening in *Frontiers in Obstetrics and Gynecology* (S. Fujimoto and H. Yamada, eds) Monduzzi Editore, Bologna, Italy, pp.69-73.
74. Watari, M., Watari, H., Strauss III, J.F., Fujimoto, S. Lipopolysaccharide induces expression of matrix metabolizing enzymes and tumor necrosis factor- α in human cervical smooth muscle cells in *Frontiers in Obstetrics and Gynecology* (S. Fujimoto and H. Yamada, eds) Monduzzi Editore, Bologna, Italy, pp.61-65.
75. Strauss III, J.F., Wood, J.R., Christenson, L.K., McAllister, J.M. Strategies to elucidate the mechanism of excessive theca cell androgen production in PCOS. *Molecular and Cellular Endocrinology* **186**: 183-188, 2002.

76. Devoto, L., Kohen, P. Vega, M., Castro, O., González, R.R., Retamales, I., Carvallo, P., Christenson, L.K., Strauss III, J.F. Control of human luteal steroidogenesis. *Molecular and Cellular Endocrinology* **186**: 137-141, 2002.
77. Wood, J.R., Strauss, III, J.F. Polycystic ovary syndrome: genetics and genomics. In *Advances in Infertility Treatment* (M. Filicori, ed) Monduzzi Editore, Bologna pp. 15-38, 2002.
78. Amsterdam, A., Hanoch, T., Dantes, A., Tajima, K., Strauss III, J.F., Seger, R. Mechanisms of gonadotropin desensitization. *Molecular and Cellular Endocrinology* **187**: 69-74, 2002.
79. Strauss III, J.F., Liu, P., Christenson, L.K., Watari, H. Sterols and intracellular vesicular trafficking: lessons from the study of NPC1. *Steroids* **67**: 947-951, 2002.
80. Wickenheisser, J.K., Strauss, III, J.F., McAllister, J.M. Steroidogenic abnormalities in PCOS theca cells. *Current Opinions in Diabetes*, in press.
81. Strauss, III, J.F., Kishida, T., Christenson, L.K., Fujimoto, T., Hiroi, H. START domain proteins and intracellular trafficking of cholesterol in steroidogenic cells. *Molecular and Cellular Endocrinology*, **202**:59-65, 2003.
82. Strauss JF III. Some new thoughts on the pathophysiology and genetics of polycystic ovary syndrome. *Ann N Y Acad Sci*. 2003 Nov;997:42-8.
83. Hiroi H, Christenson LK, Strauss JF 3rd. Regulation of transcription of the steroidogenic acute regulatory protein (StAR) gene: temporal and spatial changes in transcription factor binding and histone modification. *Mol Cell Endocrinol*. **215**:119-26.
84. Gerton GL, Fan XJ, Chittams J, Sammel M, Hummel A, Strauss JF, Barnhart K. A serum proteomics approach to the diagnosis of ectopic pregnancy. *Ann N Y Acad Sci*. **1022**:306-16, 2004.
85. Wood, J.R., Ho, C.K.M., NelsonnDegrane, V., McAllister J.M., Strauss III, J.F. The molecular signature of polycystic ovary syndrome (PCOS) theca cells defined by gene expression profiling *Journal of Reproductive Immunology* **63**: 51-6, 2005.
86. Rinaudo P, Styrauss III, J.F. Endocrine function of the postmenopausal ovary. *Endocrinology and Metabolism Clinics of North America* **33**: 661-74, 2004.
87. Menke MN, Strauss JF 3rd. Genetic approaches to polycystic ovarian syndrome. *Curr Opin Obstet Gynecol*. 2007 Aug;19(4):355-9.
88. Nam Menke M, Strauss JF 3rd. Genetics of polycystic ovarian syndrome. *Clin Obstet Gynecol*. 2007 Mar;50(1):188-204.

Review Articles

1. Strauss, J.F. III, Stambaugh, R.L. The corpus luteum and luteolytic agents. *Contemporary OB/GYN* **2**: 19, 1973.
2. Strauss, J.F. III, Schuler, L.A., Rosenblum, M.F., Tanaka, T. Regulation of cholesterol metabolism in the ovary. *Advances in Lipid Research* **18**: 99, 1981.
3. Gwynne, J.T., Strauss, J.F. III. The role of lipoproteins in steroidogenesis and cholesterol metabolism in steroidogenic glands. *Endocrine Reviews* **3**: 299, 1982.
4. Cooper, R.A., Strauss, J.F. III. Regulation of cell membrane cholesterol in *Physiology of Membrane Fluidity*. M. Shinitzky, editor, CRC Press, vol. 1, p. 73, 1984.
5. Endler, A.T., Young, D.S., Strauss, J.F. III. Testing for pregnancy in *Clinical Medicine* (J.A. Spittel, ed.) Vol. 1, Chapter 32, J.B. Lippincott Co., Philadelphia, PA, 1986.
6. Nestler, J.E., Takagi, K., Strauss J.F. III. Cholesterol and lipoprotein metabolism in cells that secrete steroid hormones. *Advances in Cholesterol Research*. Swaney, J. and Esfahani, M. eds. Packard Press, 1988.
7. Strauss, J.F. III, Miller, W.L. Ovarian steroidogenesis from a molecular perspective. In *Ovarian Endocrinology* (Hiillier, S.G., ed.) Blackwell Scientific, in press, 1989.
8. Ringler, G.E., Strauss, J.F. III. In vitro systems for the study of human placental endocrine function. *Endocrine Rev.*, 105-123, 1989.
9. Strauss, J.F. III, Gurpide, E. The endometrium. In *Reproductive Endocrinology*. S.S.C. Yen and R.B. Jaffe, eds, W.B. Saunders Co., Phila., PA Chapter 9, pp. 309-356, 1991.
10. Ringler, G.E., Strauss, J.F. III. Recent advances in understanding the process of implantation. *Current Science* **2**:703, 1990.
11. Nestler, J.E., Strauss, J.F. III. Insulin as an effector of human ovarian and adrenal steroid metabolism. *Endocrinology and Metabolism Clinics of North America* **20**: 807, 1991.
12. Strauss, J.F., III, Kido, S., Sayegh, R., Sakuragi, N., Gafvels, M.E. The cAMP signalling system and human trophoblast function. *Placenta* **13**: 389, 1992.

13. Amsterdam, A., Hanukoglu, I., Suh, B.S., Keren-Jal, D., Plehn-Dujowich, D., Sprengel, R., Hennert, H., Strauss, III, J.F. Oncogene-transformed granulosa cells as a model system for the study of steroidogenic processes. *J. Steroid Biochem. Mol. Biol.* **43**:875, 1992.
14. Rennert, H., Pfeifer, S.M., Sakuragi, N., Mellon, S., Amsterdam, A., Billheimer, J.T., Strauss, III, J.F. Intracellular lipid transfer proteins and steroidogenesis. In *Proceedings of the Ninth International Congress on Endocrinology* (Mornex, R., Jaffiol, C., LeClere, J., eds) p. 593, 1993.
15. Rennert, H., Chang, Y.J., Strauss, III, J.F. Intracellular cholesterol dynamics related to steroid hormone synthesis: A contemporary view. In *The Ovary*, E.Y. Adashi and P.C.K. Leung, eds, Chapter 8, p. 147, 1993.
16. Strauss, III J.F., Gafvels M.E., King B.F. Placental Hormones in *Endocrinology* (DeGroot, L.J. Ed) W.B. Saunders, Vol. 3, Chapter 124, p. 2171, 1994.
17. Tureck, R.W., Strauss, III, J.F., Mastroianni, Jr., L.M. The role for GnRH antagonists in controlled ovarian stimulation. *Assisted Reproduction Reviews* **3**:146, 1993.
18. Pfeifer, S.M., Furth, E.E., Ohba, T., Chang, Y.J., Rennert, H., Sakuragi, N., Billheimer, J.T., Strauss, III, J.F. Sterol carrier protein 2: A role in hormone synthesis? *Journal of Steroid Biochemistry and Molecular Biology* **47**:167, 1993.
19. Roff, C.F., Strauss, III, J.F., Brady, R.O. and Pentchev, P.G. A contemporary view of intracellular cholesterol movement. *Trends in Glycoscience and Glycotechnology* **6**:75, 1994.
20. Pfeifer, S.M. and Strauss, III, J.F. Progestins: synthesis, metabolism and molecular anatomy. In *Reproductive Endocrinology, Surgery and Technology* (E.Y. Adashi, J.A. Rock and Z. Rosenwaks, eds) Lippincott-Raven Press, pp. 493-504, 1995.
21. Strauss III, J.F., Martinez, F., Kiriakidou, M. Placental steroid hormone synthesis: unique features and unanswered questions. *Biology of Reproduction*, **54**:303, 1996.
22. Stocco, D.M., Clark, B.J., Lin, D, Sugawara, T., Strauss III, J.F. and Miller, W.L. Characterization of the protein responsible for the acute regulation of steroidogenesis in mouse Leydig tumor cells. *Cellular and Molecular Regulation of Testicular Cells*. (C. Desjardins, ed.), Sero Symposium, pp. 311-336, 1996.
23. Parry, S., Strauss, III, J.F. Placental Protein Hormones. *Obstetrics and Gynecology* (J. Sciarra, ed.) Chapter 39, pp. 1-31, 1996.
24. Martinez, F., Strauss, III, J.F. Regulation of mitochondrial cholesterol metabolism in subcellular biochemistry. 8 C.B. Human Reproduction, 28 (Bittman, R. ed.) *Cholesterol: Its Metabolism and Function in Biology and Medicine*. 1997. p. 205.
25. Parry, S., Strauss, III, J.F. Premature rupture of the fetal membranes. *New England Journal of Medicine* **338**: 663, 1998.
26. Strauss, III, J.F., Coutifaris, C. The endometrium and Myometrium. In *Reproductive Endocrinology*, S.S. C. Yen, R. Barbieri, R.B. Jaffe, eds. W. B. Saunders, 1999.
27. Strauss III, J.F., Penning, T.M. Synthesis of the sex steroid hormones: molecular and structural biology and applications to clinical practice. in *Molecular Biology in Reproductive Medicine* (B.C.M. Fauser, A.J. Rutherford, J.F. Strauss, III, A. Van Steirteghem, eds) Parthenon Publishing, 1999.
28. Stocco, D.M., Strauss III, J.F. Intramitochondrial cholesterol transfer in steroidogenic cells. In *Intracellular Cholesterol Transport* D.A. Freeman ed., Kluwer Academic Press, 1998.
29. Budak, E., Strauss III, J.F. The fetal membranes. In *Encyclopedia of Reproduction*, Academic Press, 1998.
30. Budak, E., Strauss III, J.F. Hemochorial placentation. In *Encyclopedia of Reproduction*, Academic Press, 1998.
31. Strauss III, J.F., Dunaif A. Molecular mysteries of polycystic ovary syndrome. *Molecular Endocrinology* **13**: 800, 1999.
32. Kao, L.C., Urbanek, M., Driscoll, D., Legro, R.S., Dunaif, A., Spielman, R.S., Strauss III, J.F. The genetic basis of polycystic ovary syndrome. In *The polycystic ovary*, G.T. Kovacs, ed., Cambridge University Press, 2000.
33. Parry, S., Strauss III, J.F. Placental hormones in *Endocrinology*, L.J. DeGroot and J.L. Jameson, eds, Chapter 178, W.B. Saunders, 2000.
34. Strauss III, J.F., Hsueh, A.J.W. Ovarian hormones in *Endocrinology*, L.J. DeGroot and J.L. Jameson eds, Chapter 148, W.B. Saunders, 2000.
35. Strauss, III, J.F. and Kao, L.-C. Regulation of trophoblast endocrine function: The placenta does its own thing transcriptionally. In *Embryo Implantation: Molecular, Cellular and Clinical Aspects* D.D. Carson ed.
36. Kallen, C.B., Arakane, F., Sugawara, T., Kiriakidou, M., Pollack, S.E., Watari, H., Christenson, L.K., Watari, M., Strauss III, J.F. Structure, function, and regulated expression of steroidogenic acute regulatory (StAR)

- protein. in *Contemporary Endocrinology: Adrenal Disorders*. A.N. Margioris and G.P. Chrousos, eds. Humana Press, in press.
37. Christenson, L.K., Strauss III, J.F. Steroidogenic acute regulatory protein (StAR) and the intramitochondrial translocation of cholesterol. *Biochimica et Biophysica Acta* **1529**: 175-187.
 38. Christenson, L.K., Strauss III, J.F. Steroidogenic acute regulatory protein: An update on its regulation and mechanism of action. *Archives of Medical Research* **32**: 576-586.
 39. Wood, J.R., Strauss III, J.F. Multiple signal transduction pathways regulate ovarian steroidogenesis. *Reviews in Endocrine & Metabolic Disorders* **3**: 33-46, 2002.
 40. Arechavaleta-Velasco, F., Koi, H., Strauss III, J.F., Parry, S. Viral infection of the trophoblast: time to take a serious look at its role in abnormal implantation and placentation? *Journal of Reproductive Immunology* **55**: 113-121, 2002.
 41. Parry, S., Strauss III, J.F. Placental protein hormones in *Gynecology & Obstetrics* (J.J. Sciarra, ed) Lippincott Williams & Wilkins, 2002.
 42. Christenson, L.K., Strauss III, J.F. Cholesterol metabolism in steroidogenic tissues in *Genetics of Steroid Biosynthesis and Function* (I. Mason, ed) Taylor & Francis, London and New York, Chapter 5, pp 115-144, 2002.
 43. Strauss III, J.F. Steroidogenic acute regulatory protein in *Wiley Encyclopedia of Molecular Medicine* volume 5, pp3014-3017, John Wiley & Sons, Inc., 2002.
 44. Legro, R.S., Strauss III, J.F. Molecular progress in infertility: polycystic ovary syndrome. *Fertility and Sterility* **78**: 569-576, 2002.
 45. Strauss, III, J.F. Steroidogenic acute regulatory (StAR) protein, cholesterol, and the control of steroidogenesis. *Encyclopedia of Hormones*, (H.L. Henry, A.W. Norman, eds) Academic Press, in press 2003.
 46. Strauss III, J.F. The synthesis and metabolism of steroid hormones in *Yen & Jaffe's Reproductive Endocrinology* (J.F. Strauss, III and R.L. Barbieri, eds) pp. 155-174, Elsevier/Saunders, 2004.
 47. Strauss III, J.F., Williams, C.J. The ovarian life cycle in *Yen & Jaffe's Reproductive Endocrinology* (J.F. Strauss, III and R.L. Barbieri, eds) pp. 213-254, Elsevier/Saunders, 2004.
 48. Strauss III, J.F., Lessey, B.A. The structure, function, and evaluation of the female reproductive tract in *Yen & Jaffe's Reproductive Endocrinology* (J.F. Strauss, III and R.L. Barbieri, eds) pp. 255-306, Elsevier/Saunders, 2004.
 49. Stewart, E.A., Strauss III, J.F. Disorders of the uterus: Leiomyomas, adenomyosis, endometrial polyps, abnormal uterine bleeding, intrauterine adhesions, and dysmenorrhea in *Yen & Jaffe's Reproductive Endocrinology* (J.F. Strauss, III and R.L. Barbieri, eds) pp. 713-786, Elsevier/Saunders, 2004.
 50. Ho, C.K.M., Christenson, L.K., Strauss III, J.F. Intracellular cholesterol dynamics in steroidogenic cells. In *The Ovary* (2nd ed) P.C.K. Leung and E.Y. Adashi, eds) pp.93-112. Elsevier, 2004.
 51. Ho, C.K.M., Strauss III, J.F. Ovarian hormones in *DeGroot's Endocrinology*, Elsevier, in press 2004.
 52. Parry, S., Strauss III, J.F. Placental hormones in *DeGroot's Endocrinology*, Elsevier, in press, 2004.
 53. Nass, S.J., Strauss III, J.F. Strategies to facilitate the development of new contraceptives. *Nature Reviews Drug Discovery* **3**: 885-90, 2004.

Books

1. Lipoprotein and Cholesterol Metabolism in Steroidogenic Tissues. J.F. Strauss III, and K.M.J. Menon, eds. George F. Stickley and Company, Philadelphia, 1985.
2. Molecular Neurobiology: Endocrine Approaches, Current Topics in Membranes and Transport. J. F. Strauss III and D. Pfaff, eds., Academic Press, Orlando, FL, 1987.
3. Steroid Hormones: Synthesis, Mechanism of Action and Metabolism in Health and Disease. J.F. Strauss, III, ed. *Endocrinology and Metabolism Clinics of North America*, W.B. Saunders, 1991.
4. Uterine and Embryonic Factors in Early Pregnancy. J.F. Strauss, III and C.R. Lyttle, eds. Plenum Press, 1991.
5. Recent Advances in Research of Ovarian Function. S. Fujimoto, A. Hsueh, J.F. Strauss, III and T. Tanaka, eds. *Serono Symposium*, 1995.
6. Cell Death and Reproductive Physiology, J.L. Tilly, J.F. Strauss, III and M. Tenniswood, eds., *Serono Symposia*, 1997.
7. Perinatology Clinics of North America J.F. Strauss, III and W.L. Miller, eds, W.B. Saunders, 1998.

8. Molecular Biology in Reproductive Medicine, B.J..C.M. Fauser, A.J. Rutherford, J.F. Strauss, III, A. Van Steirteghem, eds) Parthenon Publishing, 1999.
9. Ovarian Function Research: Present and Future, S. Fujimoto, E.Y. Adashi, A.J.W. Hsueh, and J.F. Strauss, III, ed, Sero Symposia Publications, 1999.
10. Reproductive Medicine: Molecular, Cellular and Genetic Fundamentals, Fauser, B.C.J.M., Bouchard, P., Hsueh, A.J.W., Rutherford, A.J., Simpson, J.L., Strauss III, J.F. Parthenon Press, 2002.
11. New Frontiers in Contraception Research S. Nass and J.F. Strauss III, eds, The National Academy Press, Washington, D.C., 2004.
12. Yen and Jaffe's Reproductive Endocrinology (5th Ed), J.F. Strauss, III, and R.L. Barbieri, eds) Elsevier/Saunders, Philadelphia, PA, 2004.
13. Preterm Birth (F. Petraglia, F.F. Strauss III, S.G. Gabbe, G. Weiss, eds), Informa Press, 2007.

Patents Issued and Pending

"Methods and compositions for gene therapy for the treatment of defects in lipoprotein metabolism" (J.M. Wilson, K. Kozarsky, J. F. Strauss, III) United States Patent No. 5652224 issued July 29, 1997.

"Identification of gene mutations associated with congenital lipid adrenal hyperplasia" (W.L. Miller, D. Lin, J.F. Strauss, III) United States Patent No. 5807678 issued September 15, 1998.

"Method of predicting fetal membrane rupture based on matrix metalloproteinase-9 activity" (J.F. Strauss, III, F. Vadillo-Ortega) United States Patent No. 5641636 issued June 24, 1997.

"Method of predicting fetal membrane rupture based on pro-matrix metalloproteinase-9 (Pro-MMP-9)" (J.F. Strauss, III, F. Vadillo-Ortega) United States Patent No. 5698404 issued December 16, 1997.

"Method of delaying fetal membrane rupture by inhibiting matrix metalloproteinase-9 activity" (J.F. Strauss, III) United States Patent No. 6,140,099 issued October 31, 2000.

"Methods and composition for gene therapy for the treatment of defects in lipoprotein metabolism" (J. Wilson, K. Kozarsky, J.F. Strauss, III) United States Patent 6,147,527 issued January 16, 2001

"Endometriosis mouse model" (J. Boyd, J.F. Strauss, III, Peter Van Deerlin, Karen K. Yamamoto) United States Patent No. 6,429,353 Issued August 6, 2002.

"Methods and compositions for the treatment of defects in lipoprotein metabolism" (J.M. Wilson, K.Kozarsky, J.F. Strauss III) United States Patent No. 6,887,463 issued May 3, 2005.

"Methods and composition for the treatment of defects in lipoprotein metabolism" (J.M. Wilson, K.M. Kozarsky, J.F. Strauss, III) United States Patent No. 7,306,794 issued December 11, 2007.

"Labor Biomarkers" (J.F. Strauss, III, A. Brown, R.S. Leite, M.D. Sammel) United States Patent Application No. 60/646,589 submitted January 26, 2005, patent pending.

"Ectopic Pregnancy Markers" (G.L. Gerton, Kurt T. Barnhart, M, Sammel, J.F. Strauss, III) United States Patent Application submitted December 22, 2004.

"Genetic Markers for Assessing Risk of Premature Birth Resulting from Preterm Premature Rupture of Membranes (J.F. Strauss, III and H. Wang) United States Patent Application 11/734,383 submitted, April, 2007.

Principal Investigator of Current Grants

R01 HD34612 Mechanisms of Fetal Membrane Rupture
TDC \$785,000

9/1/08-12/31/11

R01 HD37416 TDC \$1,250,000	Molecular Basis of Human Sperm Motility	4/1/00-3/31/011
March of Dimes Genetics of preterm birth TDC \$501,000		4/1/05-3/31/09
K12HD05581 TDC \$2,400,000	VCU Building Interdisciplinary Research Careers in Women's Health	10/1/07-7/30/12
P60MD002256 TDC \$4,200,000	National Center on Minority Health & Heath Disparities	10/1/07-7/31/12